TB 5-9720-11

WAR DEPARTMENT TECHNICAL BULLETIN

TECHNICAL DATA FOR

TRACTORS AND TRACTOR ATTACHMENTS

WAR DEPARTMENT • 10 JULY 1944

WAR DEPARTMENT,
WASHINGTON 25, D. C., 10 July 1944.

TB 5–9720–11, Technical Data for Tractors and Tractor Attachments, is published for the information and guidance of all concerned.

[A. G. 300.5 (22 May 44).]

BY ORDER OF THE SECRETARY OF WAR:

G. C. MARSHALL,
Chief of Staff.

OFFICIAL:
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For explanation of symbols, see FM 21–6.

EXPLANATION

1. Technical Data for Corps of Engineers equipment, now being issued as Technical Bulletins identified as TB 5-9720 (formerly Engineer Maintenance Circulars of the EMC-2020 series), are a convenient source of technical information designed for quick reference. It is expected that these bulletins will be of value to those requiring technical information, especially when it is not feasible to maintain an extensive library of technical manuals. Each item of equipment is fully covered, with the data listed in a uniform, tabular style. Data included are principally in the nature of applications of the equipment, operating capacities, specifications of component parts and attachments, fuel and lubricant requirements and shipping weights and cubages. Photographs illustrate the equipment.

2. In order to present technical data on all the important items of Engineer equipment in a systematic manner, approximately 40 groups or classifications of equipment have been devised. Separate bulletins are being issued for each of these groups.

3. At the beginning of each bulletin in this series, a table of contents is provided listing the names and page numbers of all equipment included in that particular bulletin. The data given on the various items of equipment have been extracted from purchasing specifications, technical manuals, manufacturer's literature, and questionnaires submitted to manufacturers.

4. Recommendations for changes and corrections should be forwarded promptly to ENGINEER FIELD MAINTENANCE OFFICE (Maintenance Division, Military Supply, OCE), P. O. Box 1679, Columbus, Ohio.

CONTENTS

SECTION I

Equipment	*Manufacturer and model*	*Page No.*
Tractor, Wheeled, Rubber-Tired, Gasoline, 30–DBHP	Case Model DI	5
Tractor, Wheeled, Rubber-Tired, Gasoline, 23–DBHP, Standard	Case SI	7
Tractor, Crawler, Gasoline, 20–DBHP	Allis-Chalmers Model WM	9
Tractor, Crawler, Gasoline, 35–DBHP, Standard	Caterpillar R4	11
Tractor, Crawler, Gasoline, 15–DBHP, Standard, 31-in. Gage, with LaPlante-Choate BABX Bulldozer, LaPlante-Choate Power Control Unit, and Braden Towing Winch	Clark CA–1	13
Tractor, Crawler, Gasoline, 35–DBHP	Cleveland BG	15
Tractor, Crawler, Gasoline, 20–DBHP	International T–6	17
Tractor, Crawler, Diesel, 55 to 65–DBHP, Standard	Allis-Chalmers HD–7W	19
Tractor, Crawler, Diesel, 35 to 40–DBHP, Standard	Caterpillar D4	21
Tractor, Crawler, Diesel, 55 to 65–DBHP, Standard	Caterpillar D6	23
Tractor, Crawler, Diesel, 70 to 90–DBHP, 74-in. Gage	Caterpillar D7	25
Tractor, Crawler, Diesel, 110 to 140–DBHP	Caterpillar D8	27
Tractor, Crawler, Diesel, 35 to 40–DBHP, Standard	International TD–9	29

SECTION II

Equipment	*Manufacturer*	*Page No.*
Angledozers	LaPlante-Choate	33
Angledozers	LeTourneau	33
Angledozers	Gar Wood	33
Angledozers	Buckeye	35
Angledozers	Bucyrus-Erie	35
Winch	Braden	35
Winch	Evans	35
Winches	Hyster	35
Bulldozers	Buckeye	37
Bulldozers	LaPlante-Choate	37
Bulldozers	LeTourneau	37
Power Control Units	Buckeye	39
Power Control Units	Heil	39
Power Control Units	LaPlante-Choate	39
Power Control Units	LeTourneau	39
Loaders	Athey	41
Loaders	Hough	41
Loaders	Trackson	41
Pipelayers	Trackson	41

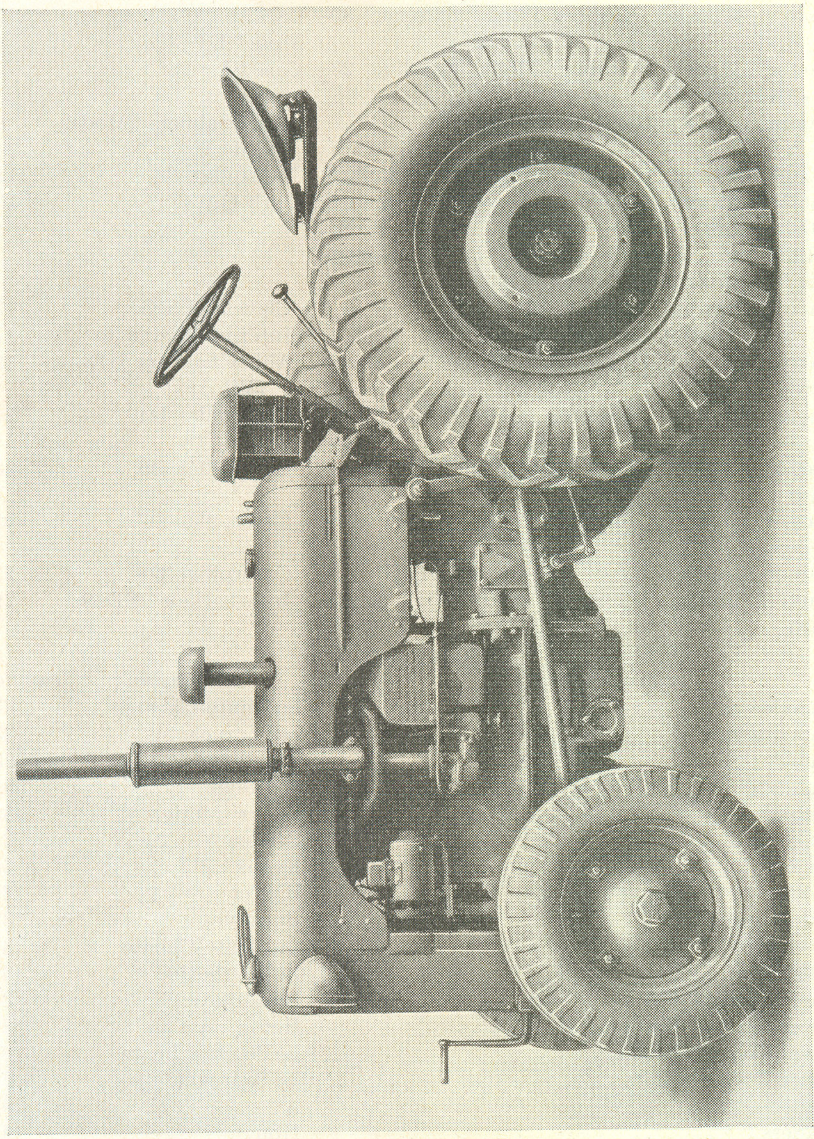

FIGURE 1.—Case DI Tractor, Wheeled, Rubber-Tired, Gasoline.

SECTION I

TRACTOR, WHEELED, RUBBER TIRED, GASOLINE, 30–DBHP, CASE, DI

Mfr: J. I. Case Co., Stock No.: 78–8448.0–33
Racine, Wis.
Model: DI

1. *General.*—This equipment is used for towing rubber-tired rollers, sheeps-foot rollers, disc harrows, and other light construction equipment.
2. *References.*—For further information regarding this equipment refer to: TM 5–3000; TB 5–3000–1; ASF Catalog, Sections ENG 7–T29 and ENG 8–T29; Lubrication Guide, No. 1027.
3. *Engine.*—Make: Case. Model: DI. Fuel: Gasoline. Cylinders: 4. Bore and Stroke: 3⅞ x 5½-in. Governed speed: 1200-rpm. Brake horsepower: 40 @ 1100-rpm. Spark plug gap: 0.028-in. to 0.032-in. Valve adjustment: 0.018-in. Firing order: 1–3–4–2.
4. *Fuel, coolant, and lubrication data.*—Fuel tank: 19½-gal gasoline. Radiator: 6½-gal water. Crankcase: 1¾-gal engine oil. Transmission: 10-gal gear oil. Engine oil grade: OE–30 above 32 F, OE–10 below 32 F. Gear oil grade: GO–90 above 32 F, GO–80 below 32 F.
5. *Speeds and drawbar pull.*—Four speeds forward, one reverse. Forward speeds with maximum drawbar pull, are: 1st: 2.24-mph, 2640-lb. 2nd: 4.29-mph, 2640-lb. 3rd: 5.91-mph, 2290-lb. 4th: 11.93-mph, 1140-lb. Reverse speed: 3.39-mph.
6. *Clutch.*—Spring-loaded type, foot-operated.
7. *Brakes.*—Hand-operated parking brake. Internal expanding rear wheel brakes, foot-operated.
8. *Tires.*—Rubber. Size: Front: 6:00 x 16, six-ply; Rear: 12:00 x 24, four-ply. Pressure: Front: 28-lb; Rear: 12-lb.
9. *Dimensions.*—Length: 110-in. Width: 63⅞-in. Height: 66-in. Wheelbase: 66-in. Drawbar height: 16-in. Turning radius: 126-in.
10. *Working weight.*—4025-lb.
11. *Shipping data.*—Boxed for export, completely assembled, but dismounted. No. of boxes: 1. Length: 106-in. Width: 71-in. Height: 63⅞-in. Cubage: 278-cu ft. Weight: 7076-lb.

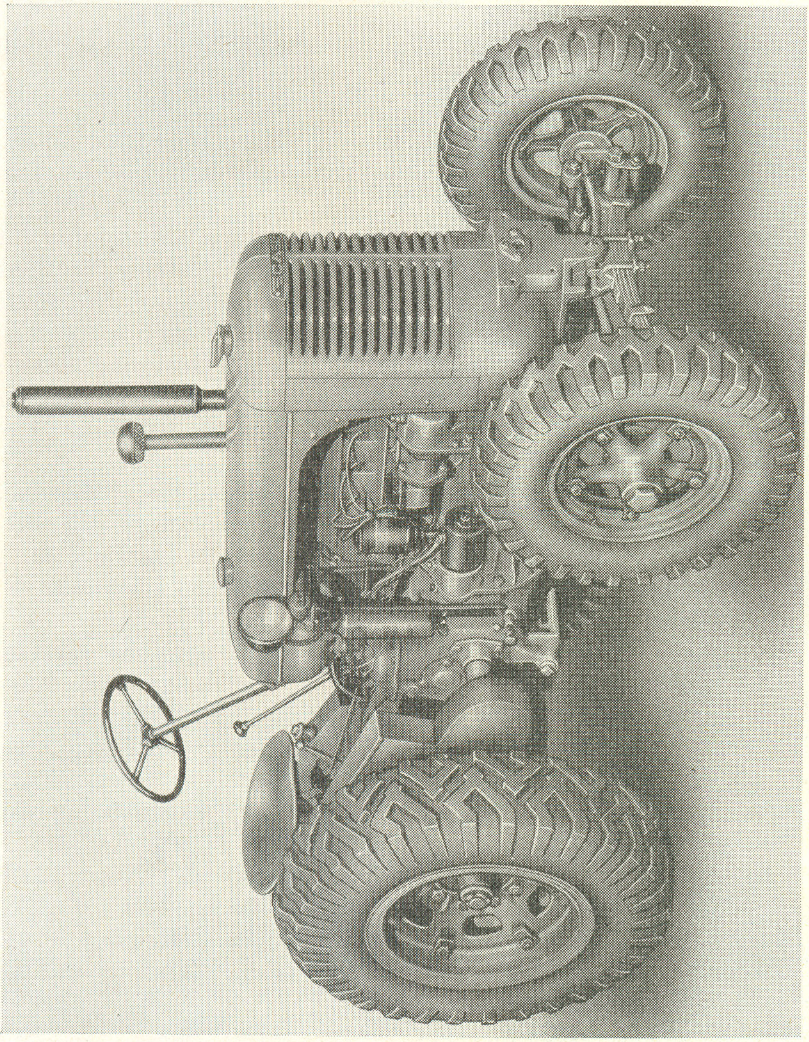

FIGURE 2.—Case SI Tractor, Wheeled, Rubber-Tired, Gasoline.

TRACTOR, WHEELED, RUBBER-TIRED, GASOLINE, 23-DBHP, STANDARD, CASE SI

Mfr: J. I. Case Co., Stock No.: 78-8428.0-35
Racine, Wis.
Model: SI

1. *General.*—This equipment is used for general towing work, and as a power source in the operation of allied equipment.
2. *References.*—For further information regarding this equipment, refer to: Manufacturer's Operation and Maintenance Manual; Lubrication Guide No. 1043; Modification Work Order, L–1999.
3. *Engine.*—Make: Case. Model: SI. Fuel: Gasoline. Cylinders: 4. Bore and Stroke: 3½ x 4-in. Governed speed: 1550-rpm. Brake horsepower: 28.5 @ 1550-rpm. Spark gap: 0.025-in. Firing order: 1–3–4–2. Valve adjustment: 0.010-in.
4. *Fuel, coolant, and lubrication data.*—Fuel tank: 14-gal gasoline. Radiator: 4-gal water. Crankcase: 1¼-gal engine oil. Transmission: 9-gal gear oil. Engine oil grade: OE–30 above 32 F, OE–10 below 32 F. Gear oil grade: GO–90 above 32 F, GO–80 below 32 F.
5. *Speeds and drawbar pull.*—Four forward speeds and one reverse. Forward speeds with maximum drawbar pull are: 1st: 1.95-mph, 2090-lb. 2nd: 2.77-mph, 2090-lb. 3rd: 3.81-mph, 2090-lb. 4th: 7.76-mph, 1020-lb. Reverse speed: 2.4-mph.
6. *Clutch.*—Single-plate, spring-loaded clutch. Diameter: 11-in.
7. *Brakes.*—Disc-type, self-energizing brakes in forward and reverse. Mounted on differential side gears. Diameter: 6-in.
8. *Tires.*—Rubber. Sizes: Front: 7:50 x 16, six ply; Rear: 12:00 x 24, six ply. Pressure: Front: 28-lb; Rear: 12-lb.
9. *Attachments.*—The following attachments are issued as standard equipment with the Case SI: POWER CONTROL UNIT, LaPlante-Choate P–11. LOADER, Bucket, Hough SI.
10. *Dimensions.*—Length: 129-in. Width: 50-in. Height: 73¼-in. Wheelbase: 66-in. Drawbar height: 13-in. Turning radius: 11-ft 7½-in.
11. *Working weight.*—3282-lb.
12. *Shipping data.*—Boxed for export, completely assembled. No. of Boxes: 1; Length: 10-ft 10-in. Width: 4-ft 11-in. Height: 4-ft 9-in. Cubage: 258-cu ft. Weight: 4965-lb.

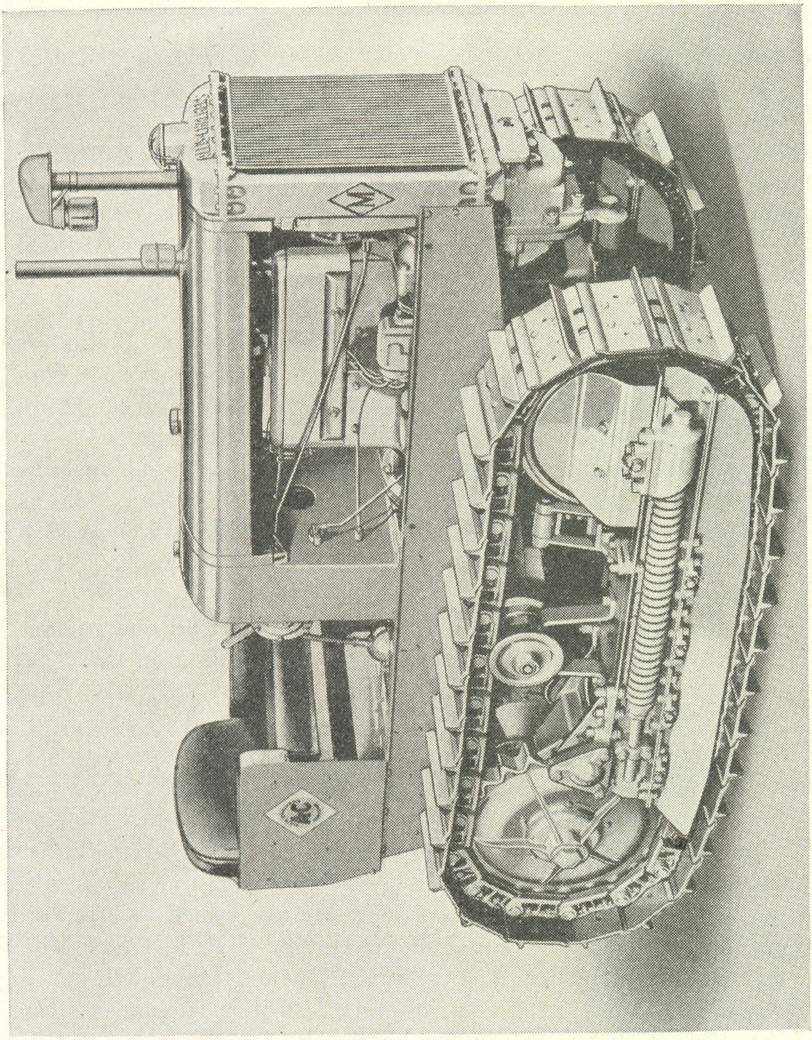

FIGURE 3.—Allis-Chalmers Tractor, Crawler, Gasoline, Model WM.

TRACTOR, CRAWLER, GASOLINE, 20-DBHP, ALLIS-CHALMERS, WM

Mfr: Allis-Chalmers Mfg. Co., Milwaukee, Wis. Stock No.: 78-8228.0-24

Model: WM

1. *General.*—This equipment is designed for towing and general construction work.
2. *References.*—For further information regarding this equipment, refer to: Manufacturer's Instruction Manual.
3. *Engine.*—Make: Allis-Chalmers. Model: WM. Fuel: Gasoline. No. of cylinders: 4. Bore and Stroke: 4½ x 5-in. Governed speed: 1200-rpm. Horsepower: 20. Spark gap: 0.030-in. Firing order: 1-2-4-3. Valve adjustment: Intake: 0.012-in. Exhaust: 0.012-in.
4. *Fuel, coolant, and lubrication data.*—Fuel tank: 24-gal gasoline. Radiator: 6-gal water. Crankcase: 2½-gal engine oil. Transmission: 12-gal gear oil. Engine oil grade: OE-30 above 32 F, OE-10 below 32 F. Gear oil grade: GO-90 above 32 F, GO-80 below 32 F.
5. *Speeds and drawbar pull.*—Four speeds forward, one reverse. Forward speeds, with drawbar pull are: 1st: 1.8-mph, 5899-lb. 2nd: 2.2-mph, 5465-lb. 3rd: 3.2-mph, 3436-lb. 4th: 4.1-mph, 2428-lb. Reverse speed: 2.5-mph.
6. *Clutch.*—Master clutch, single disc with two facings, lever control operated. Steering clutches, two, multiple dry-disc, spring-loaded type, lever control operated.
7. *Brakes.*—External contracting band, on brake drums.
8. *Crawlers.*—Gage, center to center of tracks: 50-in. Track length: 56½-in. Track shoe width: 12-in. Grouser height: 1⅝-in. Ground contact: 1356-sq in.
9. *Attachments.*—The following attachments are issued as standard equipment with Allis-Chalmers WM tractors: LOADER, Hough. (Transferred from Ordnance, with ANGLEDOZER, Buckeye WB and POWER CONTROL UNIT, Buckeye GLT.)
10. *Dimensions.*—Length: 101⅜-in. Width: 67¼-in. Height: 56¾-in. Drawbar height: 9½-in. Turning radius: 78-in.
11. *Working weight.*—Without attachments: 6730-lb.
12. *Shipping data.*—Boxed for export, completely assembled: No. of boxes: 1. Length: 104-in. Width: 68-in. Height: 73-in. Cubage: 300-cu ft. Weight: 8000-lb.

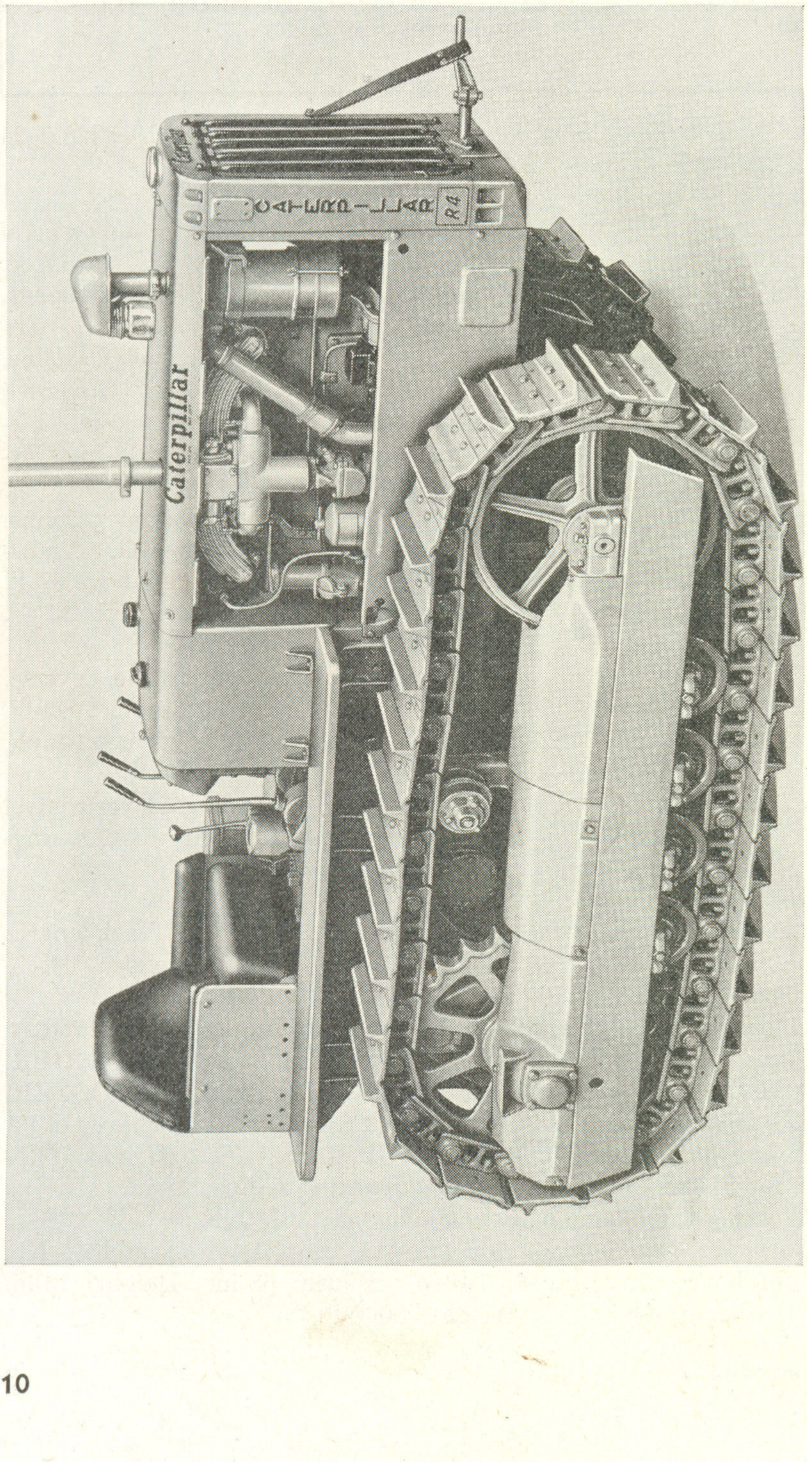

FIGURE 4.—Caterpillar Tractor, Crawler, Gasoline, Model R4.

TRACTOR, CRAWLER, GASOLINE, 35-DBHP, STANDARD, CATERPILLAR, R4

Mfr: Caterpillar Tractor Co.,
Peoria, Ill.
Stock No.: 78-8238.0-46
Model: R4

1. *General.*—This equipment is for towing and general construction work. It is made available for road clearance, earth moving, airport construction and maintenance work by attaching varied equipment to the accurately spaced connecting frame-holes.
2. *References.*—For further information regarding this equipment, refer to: TM 5-3134; ASF Catalog, Sections ENG 7-T45 and ENG 8-T45. (Publications listed cover tractor and attachments). Lubrication Guide No. 1025.
3. *Engine.*—Make: Caterpillar. Model: R4. Fuel: Gasoline. Cylinders: 4. Bore and Stroke: 4¼ x 5½-in. Governed speed: 1400-rpm. Valve adjustment: 0.010-in. Firing order: 1-3-4-2.
4. *Fuel, coolant, and lubrication data.*—Fuel tank: 32-gal fuel oil. Radiator: 11-gal water. Crankcase: 3½-gal engine oil. Transmission: 5-gal gear oil. Final drive cases: 1¾-gal gear oil each. Engine oil grade: OE-30 above 32 F, OE-10 below 32 F. Gear oil grade: GO-90 above 32 F, GO-80 below 32 F.
5. *Speeds and drawbar pull.*—Five forward speeds. One reverse speed: 1.9-mph. The forward speeds, with maximum drawbar pull, are: 1st: 1.7-mph, 7211-lb. 2nd: 2.4-mph, 5186-lb. 3rd: 3.0-mph, 4105-lb. 4th: 3.7-mph, 3147-lb. 5th: 5.4-mph, 2045-lb.
6. *Clutch.*—Each track is controlled by slow-speed, heavy duty dry multiple disc clutch. Power is transmitted through dry type flywheel clutch to selective type change speed gear set.
7. *Brakes.*—Contracting band brakes.
8. *Crawlers.*—Gage, center to center of tracks: 44-in. Track length: 61⅛-in. Track shoe width: 13-in. Grouser height 2-in. Ground contact: 1589-sq in.
9. *Attachments.*—The following attachments are issued as standard equipment with the Caterpillar R4: ANGLEDOZER. LeTourneau C-4. BULLDOZER. LeTourneau A-4 or LaPlante-Choate A-4. POWER CONTROL UNIT, LeTourneau T-4. POWER CONTROL UNIT, LeTourneau HN. WINCH, Hyster D4A.
10. *Dimensions.*—Length: 129-in. Width: 62-in. Height: 60⅝-in. Drawbar height: 13⅞-in. Turning radius: 79-in.
11. *Working weight.*—Without attachments: 9390-lb.
12. *Shipping data.*—Boxed for export (tractor only), completely assembled. No. of boxes: 1. Length: 126-in. Width: 68-in. Height: 70-in. Cubage: 347-cu ft. Weight: 11,000-lb.

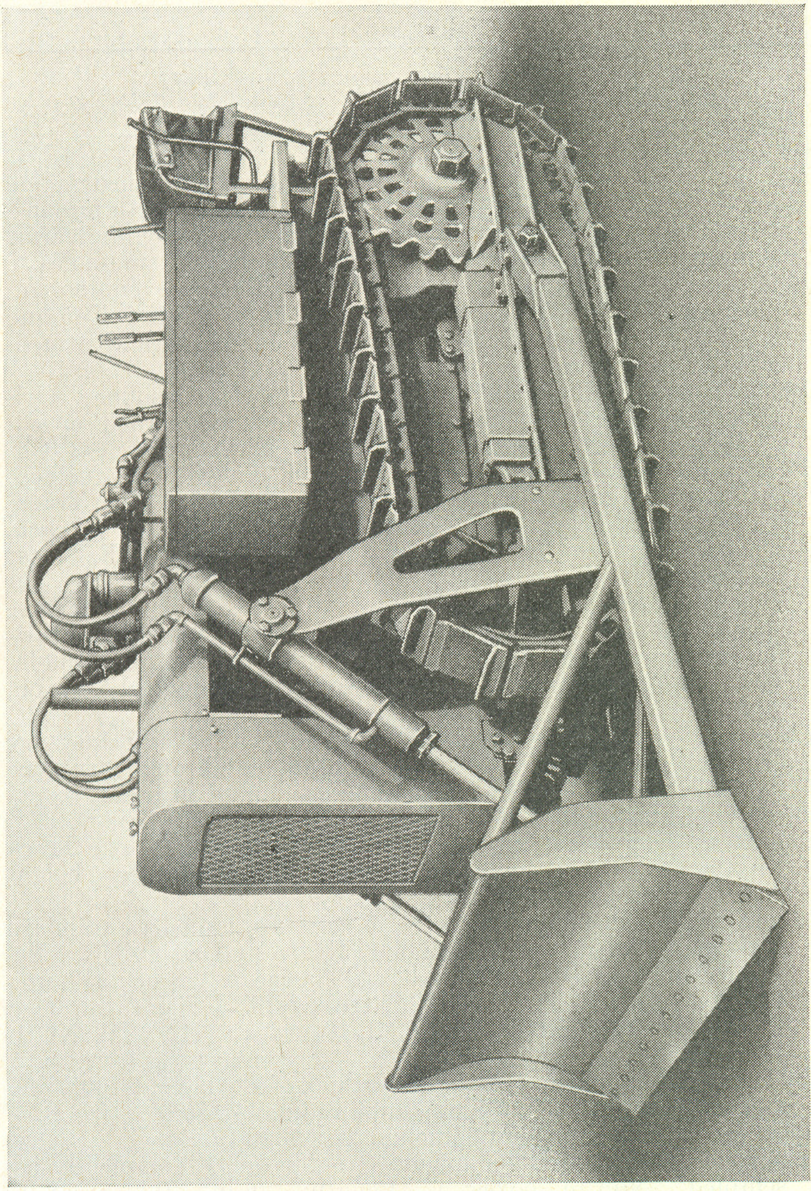

FIGURE 5.—Clark CA-1 Tractor, with BABX Bulldozer, LaPlante-Choate Power Control Unit, and Braden Towing Winch.

TRACTOR, CRAWLER, GASOLINE, 15-DBHP, STANDARD, CLARK CA-1, CLARK-AIR, 31-IN. GAGE, WITH LAPLANTE-CHOATE BABX BULLDOZER, LAPLANTE-CHOATE POWER CONTROL UNIT AND BRADEN TOWING WINCH

Mfr: Clark Equipment Co., Buchanan, Mich.

Stock No.: 78-8218.399-53

Model: CA-1.

1. *General.*—This equipment is adapted for general towing work, grading, earth moving, and especially for airport runway maintenance work.
2. *References.*—For further information regarding this equipment, refer to: TM 5-3020; Lubrication Guide No. 1047.
3. *Engine.*—Make: Waukesha. Model: FC. Fuel: Gasoline. No. of cylinders: 4. Bore & Stroke: 3¼ x 4-in. Governed speed: 1900-rpm. Horsepower: 28 @ 1900-rpm. Spark gap: 0.020-in. Firing order: 1-3-4-2. Valve adjustment: Intake: 0.005 to 0.007-in. Exhaust: 0.009 to 0.011-in.
4. *Fuel, coolant, and lubrication data.*—Fuel tank: 8½-gal gasoline. Radiator: 3-gal water. Crankcase: 1-gal engine oil. Transmission: 1-qt engine oil. Final drive cases: 2¾-gal engine oil. Engine oil grade: OE-30 above 32 F, OE-10 below 32 F for crankcase. OE-30 above 32 F and OE-30 below 32 F for transmission and Final drive cases.
5. *Speeds and drawbar pull.*—Four forward speeds, four reverse. Forward speeds with maximum drawbar pull are: 1st: 1.48-mph, 4000-lb. 2nd: 2.25-mph, 4000-lb. 3rd: 3.71-mph, 2500-lb. 4th: 5.45-mph, 1200-lb. Reverse speeds are: 1st: 1.70-mph. 2nd: 2.58-mph. 3rd: 4.15-mph. 4th: 6.25-mph.
6. *Clutch.*—Two twin-disc steering clutches, wet type. Two master clutches, one for forward motion, one reverse.
7. *Brakes.*—Hand operated, external band type, used for stopping and steering, including ratchet arrangement for parking.
8. *Crawlers.*—Gage, center to center of tracks: 29½-in. Track shoe width: 7½-in. Grouser height: 1⁹⁄₁₆-in. Track shoes each side 28.
9. *Attachments.*—The following attachments are issued as standard equipment with Clark-Air, CA-1 tractors: BULLDOZER, LaPlante-Choate, BABX. POWER CONTROL UNIT, LaPlante-Choate. WINCH, Towing, Braden.
10. *Dimensions.*—(overall) Length: 110½-in. Width: 58⅝-in. Height 55-in. Weight: Bare tractor: 3160-lb. Winch and 200-ft wire: 186-lb. Power control unit, bulldozer and push arm: 794-lb.
11. *Working weight.*—Without attachments: 3350-lb. With attachments: 4350-lb.
12. *Shipping data.*—Boxed for export, completely assembled. No. of boxes: 1. Length: 117¼-in. Width: 64¼-in. Height: 62-in. Cubage: 275-cu ft. Weight: 5155-lb.

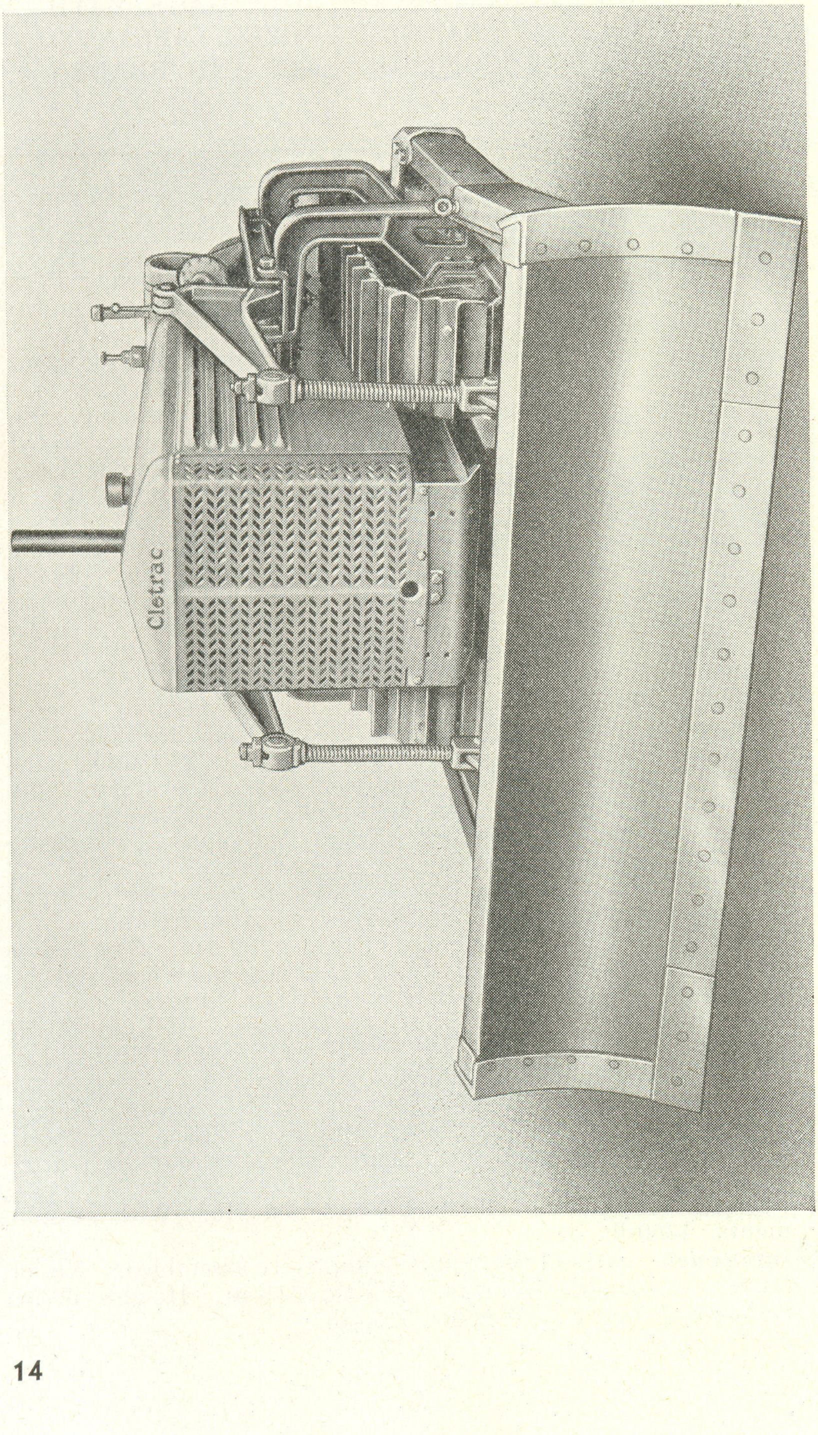

FIGURE 6.—Cleveland BG Tractor, with Gar-Wood RE Angledozer.

TRACTOR, CRAWLER, GASOLINE, 35–DBHP, CLEVELAND, BG

Mfr: The Cleveland Tractor Co., Cleveland, Ohio.

Stock No.: 78–8238.0–64

Model: BG

1. *General.*—This equipment is designed for towing, general construction work, and as a power unit.
2. *References.*—For further information regarding this equipment, refer to: Manufacturer's Instruction Manual.
3. *Engine.*—Make: Hercules. Model: JXD. Fuel: Gasoline. No. of cylinders: 6. Bore and Stroke: 4 x 4¼-in. Governed speed: 1530-rpm. Brake horsepower: 38 @ 1530-rpm. Spark plug gap: 0.020 to 0.025-in. Firing order: 1–5–3–6–2–4. Valve adjustment: Intake 0.010-in. Exhaust: 0.016-in.
4. *Fuel, coolant, and lubrication data.*—Fuel tank: 23-gal gasoline. Radiator: 6-gal water. Crankcase: 1½-gal engine oil. Transmission: 9-gal engine oil. Engine oil grade: Crankcase: OE–30 above 32 F, OE–10 below 32 F. Transmission: OE–50 above 32 F, OE–30 below 32 F.
5. *Speeds and drawbar pull.*—Four forward speeds, two reverse. Forward speeds with maximum drawbar pull are: 1st: 1.81-mph, 7600-lb. 2nd: 2.64-mph, 5700-lb. 3rd: 3.46-mph, 4200-lb. 4th: 5.4-mph, 2000-lb. Reverse speeds: Low: 1.8-mph; High: 3.4-mph.
6. *Clutch.*—Double-plate, diameter 10-in.
7. *Crawlers.*—Gage, center to center of tracks: 44-in. Track length: 63-in. Track shoe width: 14-in. Grouser height: 2-in. Ground contact: 1764-sq in.
8. *Attachments.*—The following attachments are issued as standard equipment with the Cleveland BG Tractor: ANGLEDOZER, Garwood, RE.
9. *Dimensions.*—Length: 116-in. Width 60⅛-in. Height: 57⅝-in. Turning radius: 100-in.
10. *Working weight.*—Without attachments: 8550-lb. With attachments: 12,876-lb.
11. *Shipping data.*—Boxed for export, completely assembled. No. of boxes: 1. Length: 152-in. Width: 108-in. Height: 75-in. Cubage: 725-cu ft. Weight: 14,176-lb.

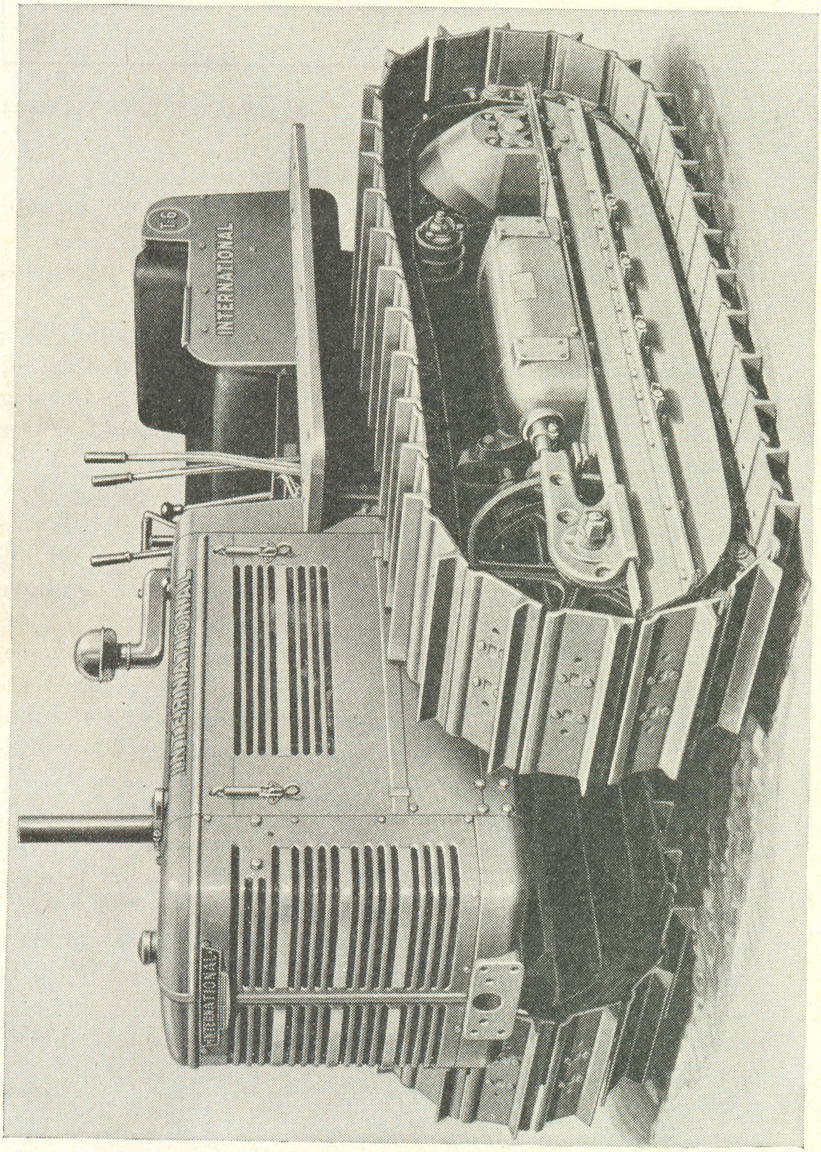

FIGURE 7.—International Tractor, Crawler, Gasoline, Model T–6.

TRACTOR, CRAWLER, GASOLINE, 20–DBHP, INTERNATIONAL, T–6

Mfr: International Harvester Co., Chicago, Ill.

Stock No.: 78–8228.0–74

Model: T–6

1. *General.*—Designed for towing, general construction work, and as a power unit, with attachments, for earth moving and road clearance.
2. *References.*—For further information regarding this equipment, refer to: Manufacturer's Instruction Manual.
3. *Engine.*—Make: IHC. Model: T–6. Fuel: Gasoline. Cylinders: 4. Bore and Stroke: 3⅞ x 5¼-in. Governed speed: 1450-rpm. Spark gap: 0.020 to 0.025-in. Firing order: 1–3–4–2. Valve adjustment: 0.017-in.
4. *Fuel, coolant, and lubrication data.*—Fuel tank: 20-gal gasoline. Radiator: 9½-gal water. Crankcase: 2¼-gal engine oil. Transmission: 4-gal gear oil. Engine oil grade: OE–30 above 32 F, OE–10 below 32 F. Gear oil grade: GO–90 above 32 F, GO–80 below 32 F.
5. *Speeds and drawbar pull.*—Five forward speeds, one reverse. Forward speeds with drawbar pull are: 1st: 1.4-mph, 7652-lb. 2nd: 2.1-mph, 5215-lb. 3rd: 3.1-mph, 3579-lb. 4th: 3.8-mph, 2767-lb. 5th: 5.4-mph, 1765-lb. Reverse speed: 1.7-mph.
6. *Clutch.*—Engine: Single plate, overcenter, diameter 12-in. Steering clutches: Two, multiple dry-disc, spring-loaded type with manual release, diameter 10⅞-in.
7. *Brakes.*—External contracting band. Diameter, 12-in.
8. *Crawlers.*—Gage, center to center of tracks: 40-in. Track length: 58⅝-in. Track shoe width: 12-in. Grouser height: 1$^{15}/_{16}$-in. Track shoes each side: 32. Ground contact: 1407-sq in.
9. *Attachments.*—The following attachments are issued as standard equipment with the T–6 Tractor: ANGLEDOZER, Buckeye WT–6. REAR POWER CONTROL UNIT, Buckeye GLT.
10. *Dimensions.*—Length: 104-in. Width: 63-in. Height: 59½-in. Drawbar height: 15¼-in.
11. *Working weight.*—Without attachments: 7420-lb. With attachments: 13,081-lb.
12. *Shipping data.*—(Estimated). Boxed for export, completely assembled. No. of boxes: 1. Length: 110-in. Width: 69-in. Height: 66-in. Cubage: 290-cu ft. Weight: 10,350-lb.

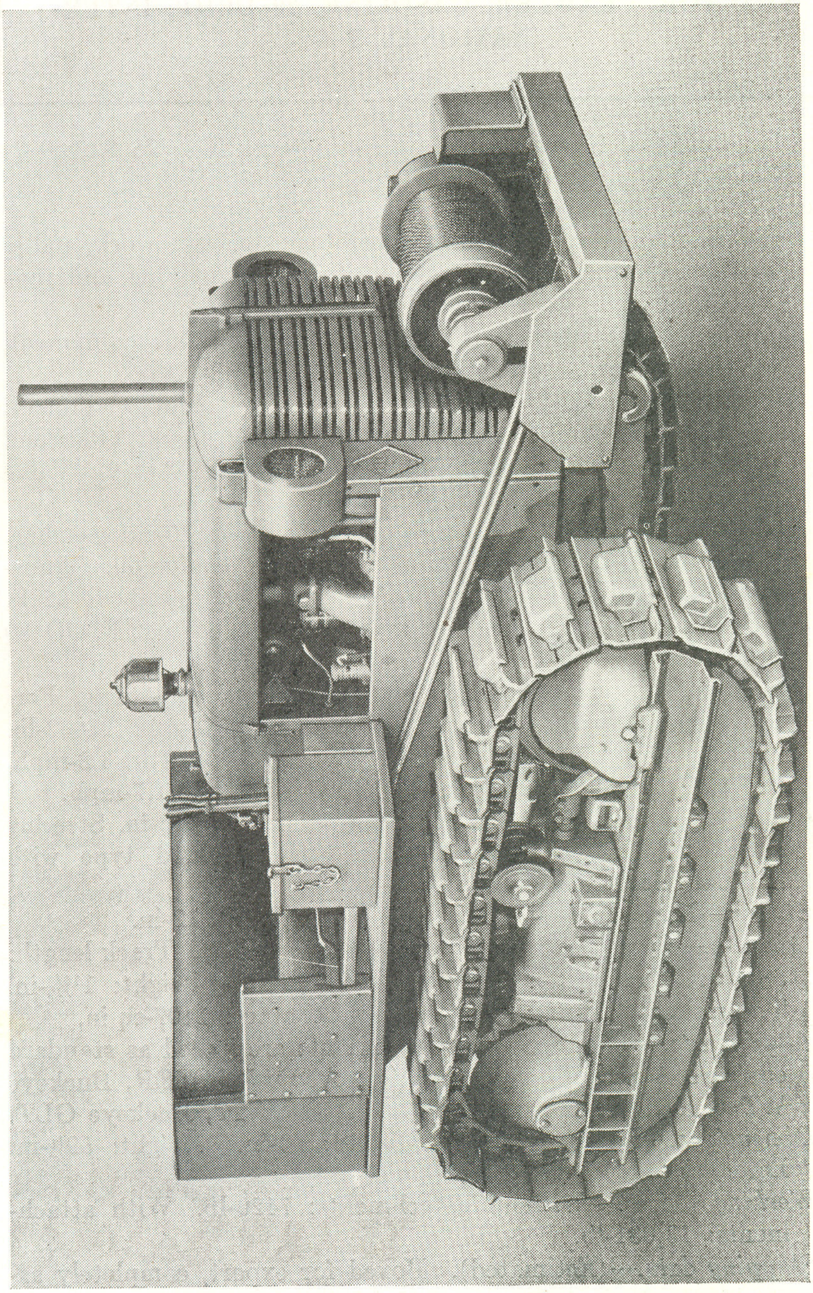

FIGURE 8.—Allis-Chalmers HD–7W Tractor, Crawler, Diesel.

TRACTOR, CRAWLER, DIESEL, 55 TO 65-DBHP STANDARD, ALLIS-CHALMERS, HD-7W

Mfr: Allis-Chalmers Mfg. Co., Stock No.: 78-8158.0-26
Milwaukee, Wis.
Model: HD-7W

1. *General.*—This equipment is designed for towing and general construction work. It is especially adapted for airport construction and maintenance work.
2. *References.*—For further information regarding this equipment, refer to: Manufacturer's Instruction Manual.
3. *Engine.*—Make: GMC Diesel. Model: RC3-71. Fuel: Diesel commercial. Cylinders: 3. Bore and Stroke: 4¼ x 5-in. Governed speed: 1500-rpm. Horsepower: 60.1. Firing order: 1-3-2. Valve adjustment: 0.012-in.
4. *Fuel, coolant, and lubrication data.*—Fuel tank: 31-gal fuel oil. Radiator: 5¾-gal water. Crankcase: 2¾-gal engine oil. Transmission: 6½-gal gear oil. Final drive cases: 1¾-gal gear oil each. Engine oil grade: OE-30 above 32 F, OE-10 below 32 F. Gear oil grade: GO-90 above 32 F, GO-80 below 32 F.
5. *Speeds and drawbar pull.*—Four speeds forward, one reverse. Forward speeds with maximum drawbar pulls are: 1st: 1.84-mph, 12,171-lb. 2nd: 2.55-mph, 8570-lb. 3rd: 3.45-mph, 6167-lb. 4th: 5.82-mph, 3311-lb. Reverse speed: 2.19-mph.
6. *Clutch.*—Multiple dry disc, spring-loaded type steering clutches, lever control operated. Master clutch, single disc with two facings, lever control operated.
7. *Brakes.*—External contracting band brakes, on brake drums.
8. *Crawlers.*—Gage, center to center of tracks: 63-in. Track length: 76-in. Track shoe width: 16-in. Track shoes each side: 34. Grouser height: 2-in. Ground contact: 2144-sq in.
9. *Attachments.*—The following attachments are issued as standard equipment with the HD-7W tractor: ANGLEDOZER, Buckeye HD-7W. ANGLEDOZER, Garwood RBX. POWER CONTROL UNIT, Buckeye MD. POWER CONTROL UNIT, Heil LD-2.
10. *Dimensions.*—Length: 125-in. Width: 70-in. Height: 86-in. Drawbar height: 10¾-in. Turning radius: 92-in.
11. *Working weight.*—Without attachments: 13,600-lb.
12. *Shipping data.*—Boxed for export (tractor only), completely assembled. No. of boxes: 1. Length: 127-in. Width: 80-in. Height: 90-in. Cubage: 526-cu ft. Weight: 14,145-lb.

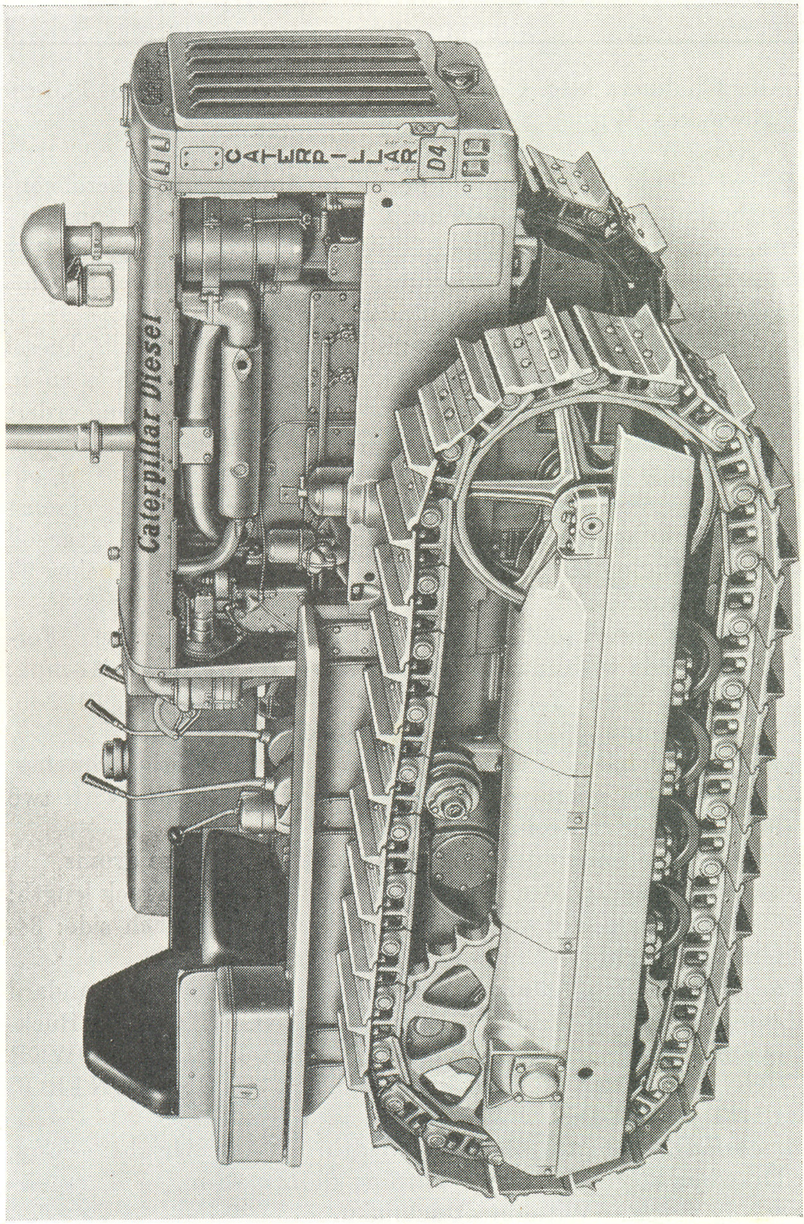

FIGURE 9.—Caterpillar D4 Tractor, Crawler, Diesel.

TRACTOR, CRAWLER, DIESEL, 35 TO 40–DBHP, STANDARD, CATERPILLAR, D4

Mfr: Caterpillar Tractor Co. Stock No.: 78–8138.0–44
Peoria, Ill.
Model: D4

1. *General.*—The D4 is designed for towing and all types of general construction work. Accurately located frame-holes are provided for attaching varied tractor equipment to adapt it for use in earth moving, road clearance, and airport construction work.
2. *References.*—For further information regarding this equipment, refer to: TM 5–3110; ASF Catalog, Section ENG 7–T31, ENG 8–T31.
3. *Engine.*—Make: Caterpillar. Model: D4. Fuel: Diesel commercial. Cylinders: 4. Bore and Stroke: 4¼ x 5½-in. Governed speed: 1400-rpm. Valve adjustment: 0.010-in. Firing order: 1–3–4–2. Equipped with Independent, 2-cylinder, 4-stroke-cycle gasoline starting engine.
4. *Fuel, coolant, and lubrication data.*—Fuel tank: 25-gal fuel oil. Radiator: 11-gal water. Crankcase: 4-gal engine oil. Transmission: 5-gal gear oil. Final drive cases: 1¾-gal gear oil each. Engine oil grade: OE–30 above 32 F, OE–10 below 32 F. Gear oil grade: GO–90 above 32 F, GO–80 below 32 F.
5. *Speeds and drawbar pull.*—Five forward speeds and one reverse. Reverse speed: 1.9-mph. Forward speeds with maximum drawbar pull are: 1st: 1.7-mph, 7852-lb. 2nd: 2.4-mph, 5811-lb. 3rd: 3.0-mph, 4541-lb. 4th: 3.7-mph, 3471-lb. 5th: 5.4-mph, 2230-lb.
6. *Clutch.*—Power is transmitted through dry type flywheel clutch to selective type change speed gear set. Each track is controlled by slow speed, heavy duty, dry multiple disc clutch.
7. *Brakes.*—Contracting band brakes.
8. *Crawlers.*—Gage, center to center of tracks: 44-in. Track length: 61⅛-in. Track shoe width: 13-in. Grouser height: 2-in. Track shoes, each side: 31. Ground contact: 1589-sq in.
9. *Attachments.*—The following attachments are issued as standard equipment with the D4 Caterpillar: ANGLEDOZER, LaPlante-Choate 4R. ANGLEDOZER, LeTourneau C–4. BULLDOZER, LaPlante-Choate or LeTourneau A–4. POWER CONTROL UNIT, LeTourneau T–4. COMBINATION POWER CONTROL UNIT AND WINCH, LeTourneau, HN. WINCH, Hyster D–4A. WINCH, Hyster D4.
10. *Dimensions.*—Length: $121\frac{9}{16}$-in. Width: 62-in. Height: 60⅝-in. Drawbar height: 13⅞-in. Turning radius: 74-in.
11. *Working weight.*—Without attachments: 10,000-lb.
12. *Shipping data.*—Boxed for export (tractor only), completely assembled. No. of boxes: 1. Length: 126-in. Width: 68-in. Height: 69-in. Cubage: 343-cu ft. Weight: 11,600-lb.

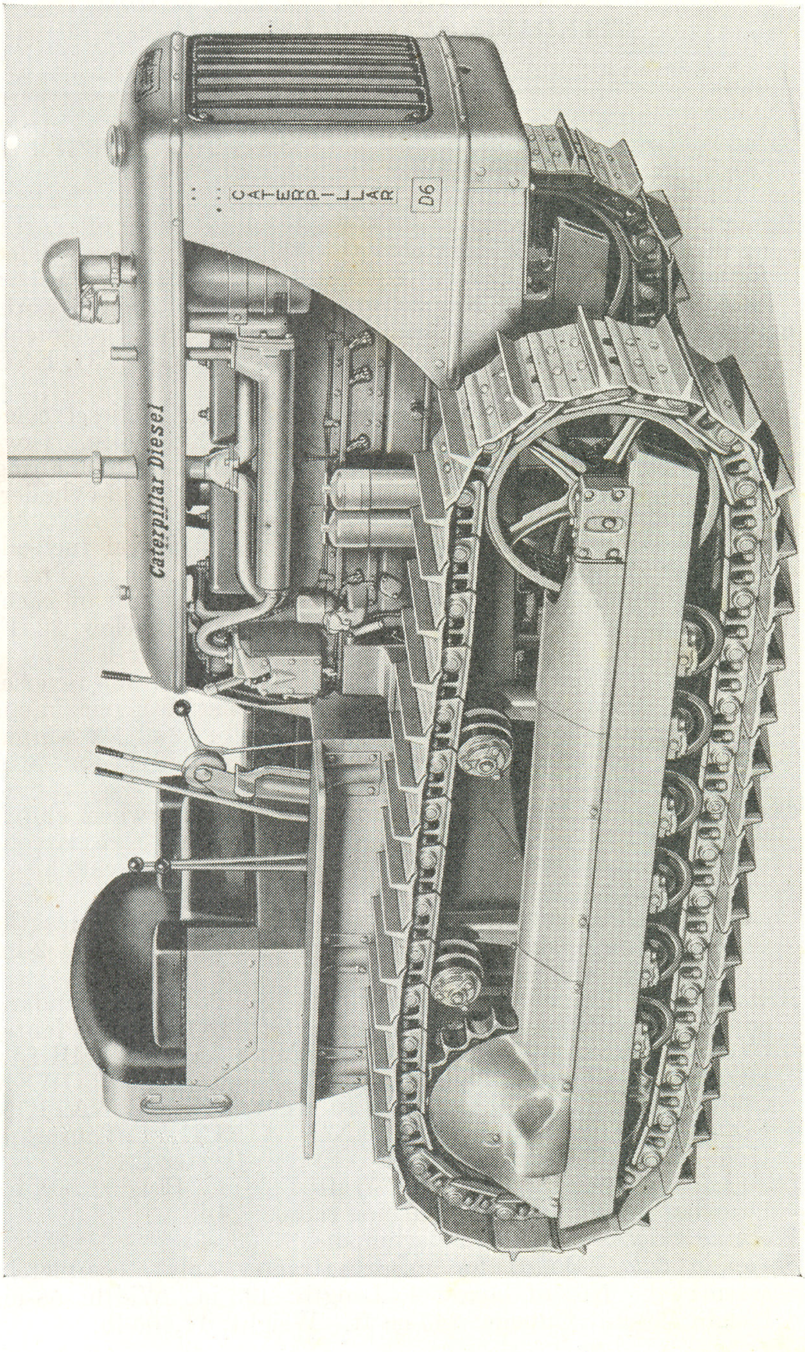

FIGURE 10.—Caterpillar D6 Tractor, Crawler, Diesel.

TRACTOR, CRAWLER, DIESEL, 55 TO 65–DBHP, STANDARD, CATERPILLAR, D6

Mfr: Caterpillar Tractor Co.,
Peoria, Ill.
Stock No.: 78–8158.0–46
Model: D6

1. *General.*—Caterpillar D6 Tractors are designed for all types of construction work and towing, and have accurately located frame holes for attaching varied equipment which adapts them for earth moving, road clearance, angledozing, bulldozing, and loading operations.
2. *References.*—For further information regarding this equipment, refer to: TM 5–3100; ASF Catalog, Sections ENG 7–T40 and ENG 8–T40.
3. *Engine.*—Make: Caterpillar. Model: D6. Fuel: Diesel commercial. Cylinders: 6. Bore and Stroke: 4½ x 5½-in. Governed speed: 1400–rpm. Valve adjustment: 0.010-in. Firing order: 1–5–3–6–2–4. Starting engine: 2-cylinder, 4-stroke-cycle, horizontal gasoline engine, 15–hp @ 3000-rpm.
4. *Fuel, coolant, and lubrication data.*—Fuel tank: 48-gal. fuel oil. Radiator: 12¼-gal water. Crankcase: 4¾-gal engine oil. Transmission: 9½-gal gear oil. Final drive cases: 3-gal gear oil each. Engine oil grade: OE–30 above 32 F, OE–10 below 32 F. Gear oil grade: GO–90 above 32 F, GO–80 below 32 F.
5. *Speeds and drawbar pull.*—Five forward speeds and four reverse. Forward speeds with maximum drawbar pull are: 1st: 1.4-mph, 14,300-lb. 2nd: 2.3-mph, 9100-lb. 3rd: 3.2-mph, 6200-lb. 4th: 4.4-mph, 4000-lb. 5th: 5.8-mph, 2650-lb. Reverse speeds: 1st: 1.8-mph. 2nd: 2.8-mph. 3rd: 3.9-mph. 4th: 5.4-mph.
6. *Clutch.*—Power Clutch: Overcenter dry type flywheel type. Each track is controlled by slow-speed, heavy-duty, dry multiple disc clutch.
7. *Brakes.*—Contracting band brakes.
8. *Crawlers.*—Gage, center to center of tracks: 60-in. Track length: 85⅝-in. Track shoe width: 16-in. Grouser height: 2⅛-in. Track shoes each side: 39. Ground contact: 2740-sq in.
9. *Attachments.*—The following attachments are issued as standard equipment with the Caterpillar D6: ANGLEDOZER, LaPlante-Choate R61. ANGLEDOZER, LeTourneau SK6. TILTDOZER, LaPlante-Choate A6, or LeTourneau A6. POWER CONTROL UNIT, LeTourneau R–678. WINCH, Hyster D6N.
10. *Dimensions.*—Length: 149$\frac{3}{16}$-in. Width: 80¼-in. Height: 72½-in. Drawbar height: 14-in. Turning radius: 100-in.
11. *Working weight.*—Without attachments: 16,300-lb.
12. *Shipping data.*—Boxed for export, (tractor only), completely assembled. No. of boxes: 1. Length: 156-in. Width: 87-in. Height: 87-in. Cubage: 684-cu ft. Weight: 19,500-lb.

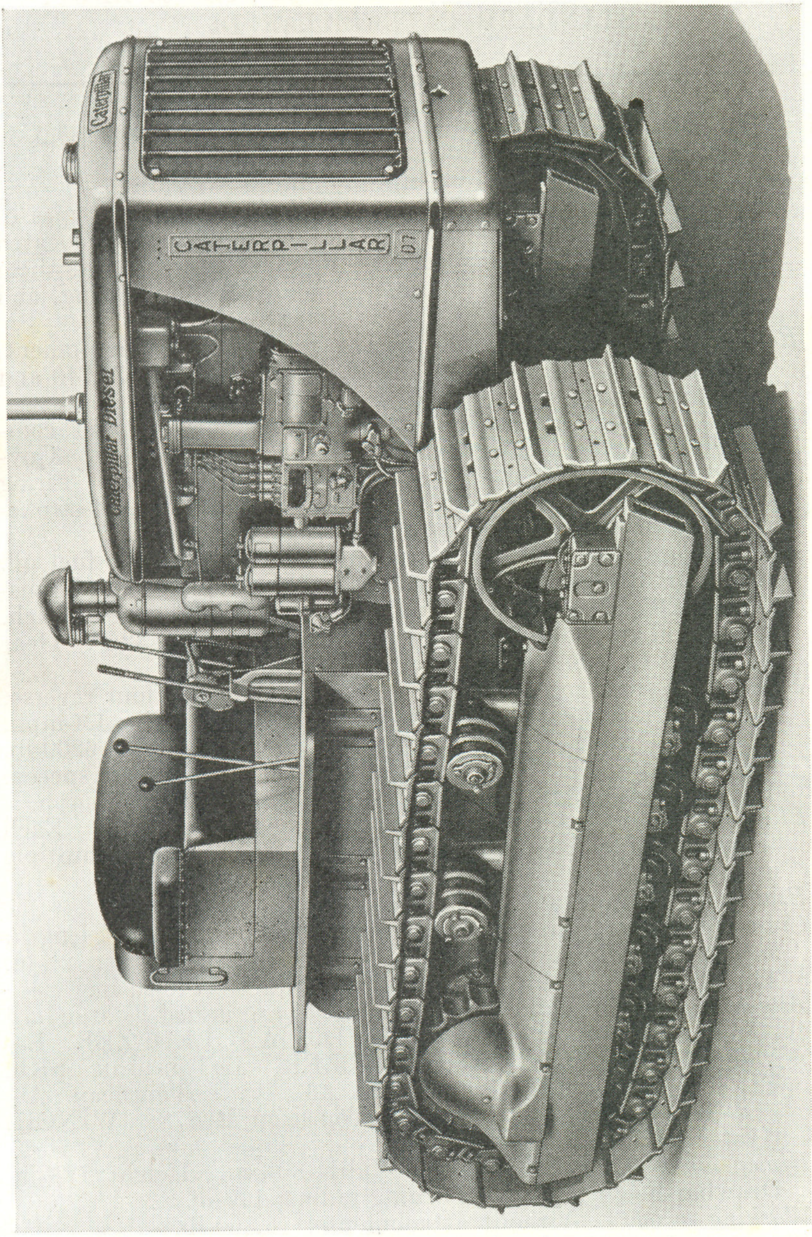

FIGURE 11.—Caterpillar Tractor, Crawler, Diesel, Model D7.

TRACTOR, CRAWLER, DIESEL, 70 TO 90-DBHP, STANDARD, CATERPILLAR D7, 74-IN. GAGE

Mfr: Caterpillar Tractor Co.,
Peoria, Ill.
Model: D7

Stock No.: 78-8168.0-44

1. *General.*—The D7 Caterpillar is designed for towing and general construction work. Accurately located frame holes permit attachments of varied types, which adapt the equipment for road construction work, road clearance, airport construction work, and heavy loading.
2. *References.*—For further information regarding this equipment, refer to: TM 5-3068; ASF Catalog, Sections ENG 7-T35, ENG 8-T35.
3. *Engine.*—Make: Caterpillar. Model: D7. Fuel: Diesel commercial. Cylinders: 4. Bore and Stroke: 5¾ x 8-in. Governed speed: 1000-rpm. Valve adjustment: 0.012-in. Firing order: 1-3-4-2. Starting engine: 2-cylinder, 4-stroke-cycle vertical gasoline engine, 24-hp @ 2700-rpm.
4. *Fuel, coolant, and lubrication data.*—Fuel tank: 65-gal fuel oil. Radiator: 18-gal water. Crankcase: 5½-gal engine oil. Transmission: 10-gal gear oil. Final drive cases: 6-gal gear oil each. Engine oil grade: OE-30 above 32 F, OE-10 below 32 F. Gear oil grade: GO-90 above 32 F, GO-80 below 32 F.
5. *Speeds and drawbar pull.*—Four reverse speeds: 1st: 1.6-mph. 2nd: 2.6-mph. 3rd: 3.8-mph. 4th: 5.4-mph. Five forward speeds, with maximum drawbar pull are: 1st: 1.4-mph, 21,351-lb. 2nd: 2.2-mph, 13,454-lb. 3rd: 3.2-mph, 9090-lb. 4th: 4.6-mph, 5994-lb. 5th: 6.0-mph, 4550-lb.
6. *Clutch.*—Each track is controlled separately by slow-speed, heavy-duty, dry multiple disc clutch. Power is transmitted through flexible coupling and over center engagement, dry flywheel clutch.
7. *Brakes.*—Contracting band brakes.
8. *Crawlers.*—Gage, center to center of tracks: 74-in. Track length: 93¼-in. Track shoe width: 20-in. Grouser height: 2⅜-in. Track shoes each side: 36. Ground contact: 3730-sq in.
9. *Attachments.*—The following attachments are issued as standard equipment with the Caterpillar D7: ANGLEDOZER, LeTourneau WCK7. ANGLEDOZER, LaPlante-Choate R76F. ANGLEDOZER, LaPlante-Choate R-71. BULLDOZER, LeTourneau XD7. POWER CONTROL UNIT, LeTourneau FTD-7. POWER CONTROL UNIT, LeTourneau AD-7. POWER CONTROL UNIT, LeTourneau R-7. WINCH, Hyster D7N.
10. *Dimensions.*—Length: 162¼-in. Width: 98-in. Height: 80-in. Drawbar height: 17½-in. Turning radius: 107-in.
11. *Working weight.*—Without attachments: 23,675-lb.
12. *Shipping data.*—Boxed for export, (tractor only), completely assembled. No. of boxes: 1. Length: 168-in. Width: 103-in. Height: 93-in. Cubage: 932-cu ft. Weight: 27,050-lb.

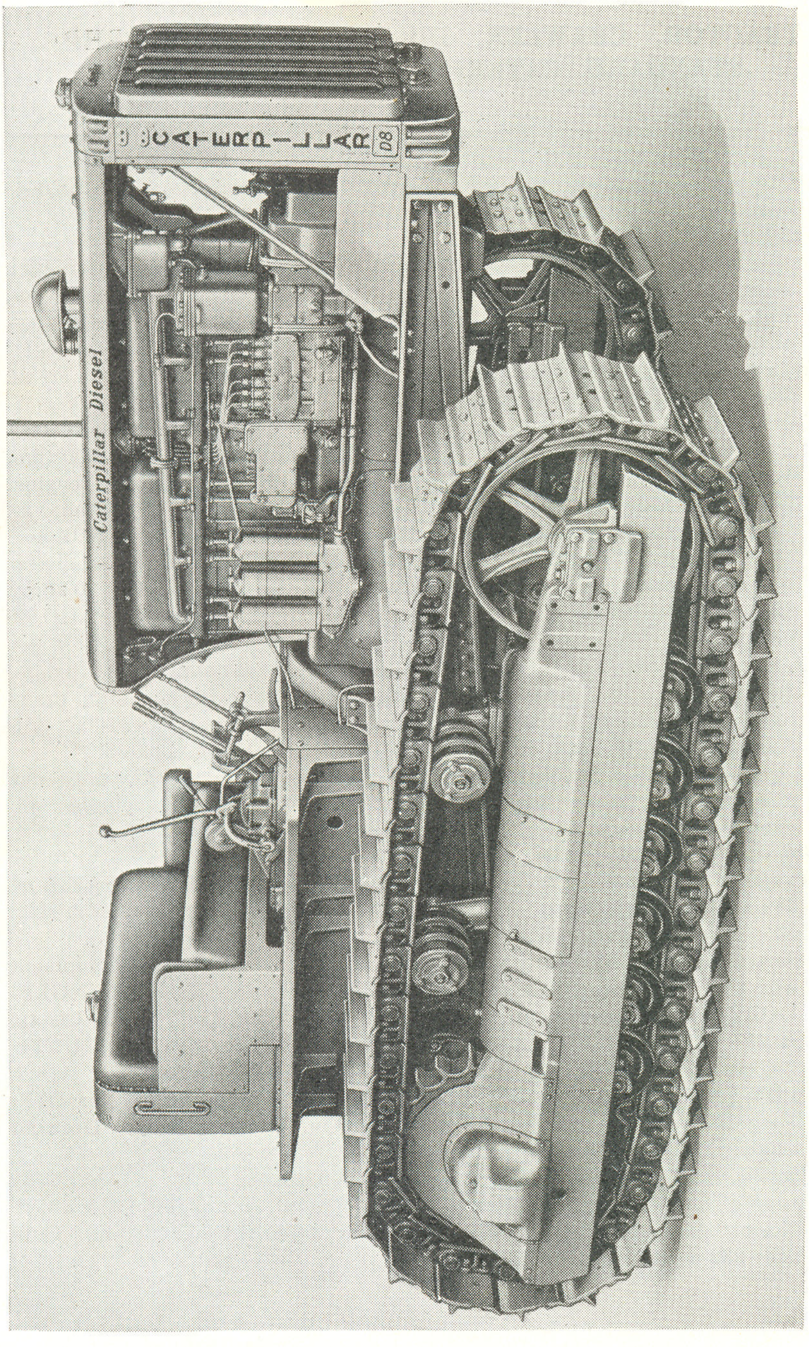

FIGURE 12.—Caterpillar Tractor, Crawler, Diesel, Model D8.

TRACTOR, CRAWLER, DIESEL, 110 TO 140–DBHP, CATERPILLAR, D8

Mfr: Caterpillar Tractor Co.,
Peoria, Ill.
Stock No.: 78–8177.0–47
Model: D8

1. *General.*—The D8 is designed for all types of heavy construction work. With various allied equipment, angledozer, bulldozer, loader, power control unit, and winch, it is adaptable for all types of road clearance, logging, heavy loading, and airport construction work.
2. *References.*—For further information regarding this equipment, refer to: TM 5–3040; ASF Catalog, Section ENG 7–T36, ENG 8–T36; Technical Bulletin, TB 5–3040–1; Lubrication Guide No. 1026.
3. *Engine.*—Make: Caterpillar. Model: D8. Fuel: Diesel commercial. Cylinders: 6. Bore and Stroke: 5¾ x 8-in. Governed speed: 950-rpm. Valve Adjustment: 0.012-in. Firing order: 1–5–3–6–2–4. Independent, 2-cylinder, 4-stroke-cycle, 24-hp, gasoline starting engine.
4. *Fuel, coolant, and lubrication data.*—Fuel tank: 69-gal fuel oil. Radiator: 28-gal water. Crankcase: 8½-gal engine oil. Transmission: 10-gal gear oil. Final drive cases: 6½-gal gear oil each. Engine oil grade: OE–30 above 32 F, OE–10 below 32 F. Gear oil grade: GO–90 above 32 F, GO–80 below 32 F.
5. *Speeds and drawer pull.*—Six forward speeds, two reverse. Low reverse: 1.6-mph. High reverse: 2.6-mph. Forward speeds with maximum drawbar pull are: 1st: 1.6-mph, 26,208-lb. 2nd: 2.2-mph, 19,537-lb. 3rd: 2.6-mph, 15,973-lb. 4th: 3.0-mph, 13,707-lb. 5th: 3.6-mph, 11,266-lb. 6th: 4.9-mph, 7995-lb.
6. *Clutch.*—Power is transmitted through flexible coupling and over center engagement dry flywheel clutch with metallic friction surfaces. Each track is controlled by slow-speed, heavy-duty, dry multiple-disc clutch.
7. *Brakes.*—Contracting band brakes.
8. *Crawlers.*—Gage, center to center of tracks: 78-in. Track length: 97⅝-in. Track shoe width: 22-in. Track shoes each side: 38. Grouser height: 2⅝-in. Ground contact: 4396-sq in.
9. *Attachments.*—The following attachments are issued as standard equipment with the Caterpillar D8: ANGLEDOZER, LeTourneau AK–8. ANGLEDOZER, LeTourneau CK–8. ANGLEDOZER, LeTourneau CKD–8. BULLDOZER, LaPlante-Choate B81. LOADER, Athey 8–H. POWER CONTROL UNIT, LeTourneau T–8. POWER CONTROL UNIT, LeTourneau R8. POWER CONTROL UNIT, LeTourneau FTD–8. WINCH, Hyster D8N.
10. *Dimensions.*—Length: 183-in. Width: 103¾-in. Height: 90-in. Drawbar height: 17½-in. Turning radius: 114-in.
11. *Working weight.*—Without attachments 34,175-lb.
12. *Shipping data.*—Boxed for export, (tractor only), completely assembled. No. of boxes: 1. Length: 185-in. Width: 111-in. Height: 99-in. Cubage: 1177-cu ft. Weight: 38,900-lb.

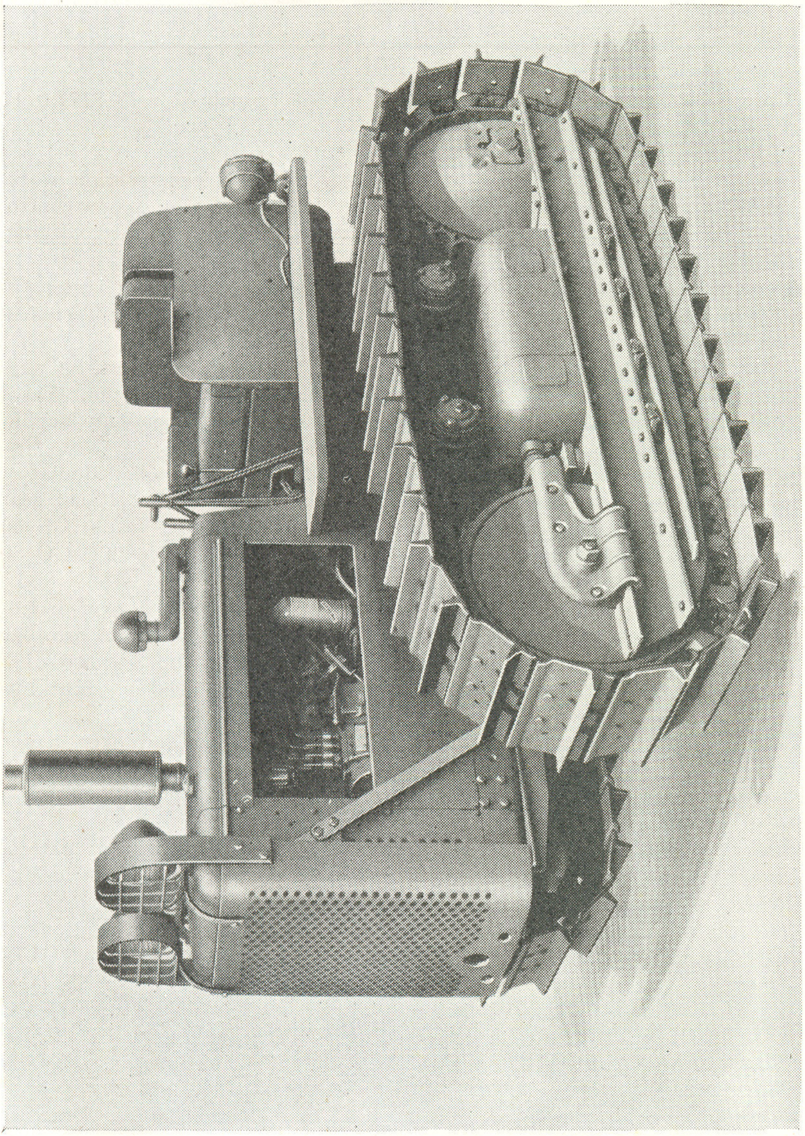

FIGURE 13—International TD-9 Tractor, Crawler, Diesel.

TRACTOR, CRAWLER, DIESEL, 35 TO 40–DBHP, STANDARD, INTERNATIONAL, TD–9

Mfr: International Harvester Co.,
Chicago, Ill.
Stock No.: 78–8318.0–76
Model: TD–9

1. *General.*—This equipment is designed for towing and general construction work. As a power unit, with attachments, it is adapted for earth moving, road clearance, and airport construction work.
2. *References.*—For further information regarding this equipment, refer to: Manufacturer's Instruction Manual.
3. *Engine.*—Type: Diesel. Make: IHC. Model: TD–9. No. of cylinders: 4. Bore and Stroke: 4.4 x 5.5-in. Governed speed: 1400-rpm. Horsepower: 38.9. Spark gap: 0.020 to 0.025-in. Firing order: 1–3–4–2. Valve adjustment: Intake, 0.017-in.; Exhaust, 0.017-in.
4. *Fuel, coolant, and lubrication data.*—Fuel tank: 31-gal fuel oil. Radiator: 13-gal. water. Crankcase: 2¾-gal engine oil. Transmission: 5-gal gear oil. Engine oil grade: OE–30 above 32 F, OE–10 below 32 F. Gear oil grade: GO–90 above 32 F, GO–80 below 32 F.
5. *Speeds and drawbar pull.*—Five forward speeds, one reverse. Forward speeds with drawbar pull are: 1st: 1.5-mph, 9014-lb. 2nd: 2.2-mph, 6637-lb. 3rd: 3.2-mph, 4368-lb. 4th: 3.9-mph, 3551-lb. 5th: 5-3-mph, 2304-lb. Reverse speed: 1.7-mph.
6. *Clutch.*—Engine: Single plate, overcenter, diameter 13-in. Steering clutches: Two, multiple dry-disc, spring-loaded type with individual manual release, diameter 14⅛-in.
7. *Brakes.*—External contracting band, on the steering clutch drums, Diameter: 15¾-in.
8. *Crawlers.*—Gage, center to center of tracks: 60-in. Track length: $63\frac{7}{16}$-in. Track shoe width: 13-in. Grouser height: $2\frac{7}{64}$-in. Track shoes each side: 33. Ground contact: 1649-sq. in.
9. *Attachments.*—The following attachments are issued as standard equipment with the TD–9 Tractor: BULLDOZER: Bucyrus Erie, 20–21, hydraulic, wide tread, and front mounted pump.
10. *Dimensions.*—Length: 114-in. Width: 76-in. Height: 66⅜-in. Drawbar height: 13¾-in.
11. *Working weight.*—Without attachments: 9850-lb. With attachments: 13,875-lb.
12. *Shipping data.*—(Estimated). Boxed for export, completely assembled. No. of boxes: 1. Length: 122-in. Width: 82-in. Height: 72-in. Cubage: 417-cu ft. Weight: 15,750-lb.

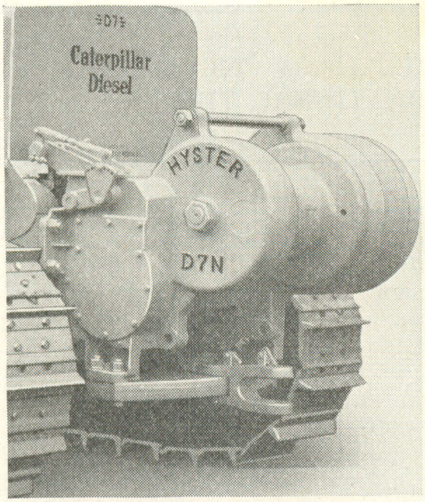

FIGURE 14.—Winch, Hyster, Model D7N.

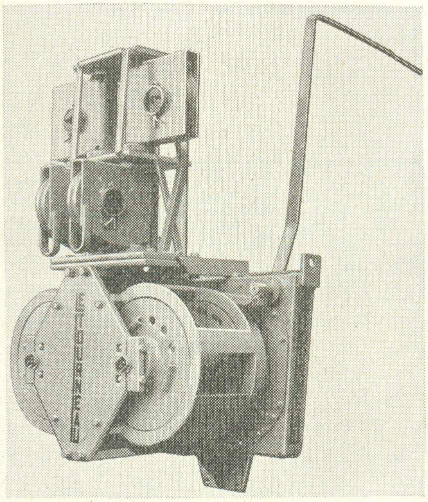

FIGURE 15.—Power Control Unit, LeTourneau Model R678.

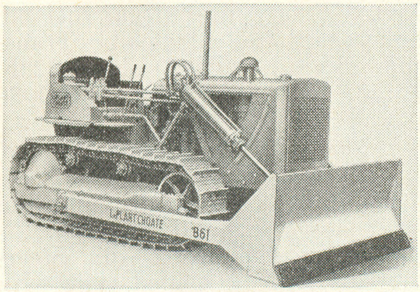

FIGURE 16.—Bulldozer, LaPlante-Choate, Model B-61.

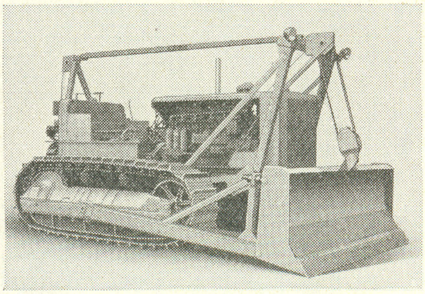

FIGURE 17.—Bulldozer, LeTourneau, Model XD9.

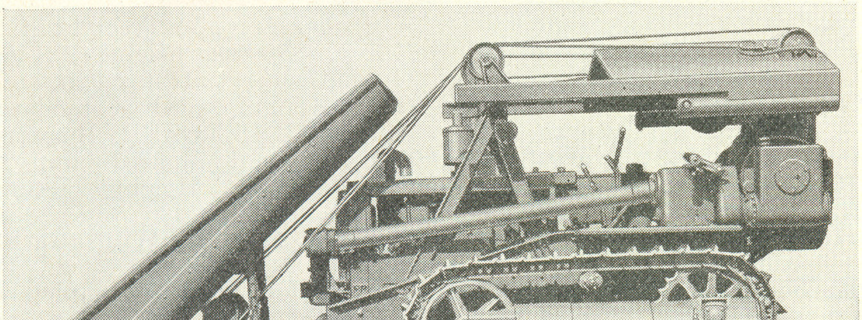

FIGURE 18.—Loader, Athey, Model W4-1, "Mobiloader."

SECTION II

TRACTOR ATTACHMENTS USED WITH TRACTORS DESCRIBED IN SECTION I

1. *General.* (*a*) Data listed below apply generally to all equipment covered by the group heading. For example, information in Group 2 applies to all Power Control Units, that in Group 3 to all Angledozers, etc.

   (*b*) Allied equipment for tractors is listed by the Corps of Engineers under the broad general headings shown below. Many variations of these classifications appear in other publications, yet they can be associated readily with standard nomenclature. For instance "Bullgrader," "Tiltdozer," and "Trailbuilder" are trade names, all classified as "Angledozers." "Pushdozer" is classed as a Bulldozer, along with "Treedozer." Both names are self-explanatory. Similarly "Traxcavators" and "Mobiloaders" are grouped under "Loaders."

   (*c*) Many combinations of tractor and allied equipment exist. Space limitations preclude separate listings. For this reason the following charts were devised. They are easy to use. If you have a D7 Caterpillar equipped with an R–76F Angledozer, an FD7 Power Control Unit, and a D–7N Winch, turn to the chart on page 33 for Angledozer data, to the one on page 35 for information on the Winch, and to page 39 for Power Control Unit details. Applicable data for other combinations may be secured merely by consulting the chart or charts listing the allied equipment made available to you.
2. *Power control units* are used as a power source in the operation of other allied equipment, Angledozers, Bulldozers, etc. In many cases they may be used as a winch for lifting within the limits of their capacity.
3. *Angledozers* (blades capable of being angled or tilted) are used for clearing, stripping, leveling, side-hill sloping, ditching, carving out roadways, stump and boulder removal, building levees, and for airport construction work. They perform practically every function of Bulldozers within limits determined by weight.
4. *Bulldozers* (fixed blades) move rock, uproot trees and stumps, level land, grade and maintain roadways, and are adaptable for stock piling, stripping overburden, excavating, cleaning pit floors, spreading, and for various logging operations. They are also useful in airport construction and maintenance work.
5. *Pipelayers*, Side cranes powered by tractors, will lift, lower, carry, or bend pipe. They are also useful in handling and placing poles and piles, setting machinery, erecting steel work, and in heavy loadlifting.
6. *Loaders* dig and load packed material, such as sand, gravel, and crushed stone. They rip up railroad ties and load the ties on trucks. They are especially adapted for stock piling, where mobility from stock pile to rail or truck permits segregation of material. (For snow and aggregate loaders, employing crawler-type tractor chassis, refer to TB 5–9720–2 and TB 5–9720–6.)
7. *Winches* are designed for towing service and for moving loads too heavy to be handled by normal drawbar pull. They can be operated while tractor is traveling or stationary.
8. *Anglefillers* are used for trench filling in combination with pipelayers, and eliminate the use of a separate backfiller or bulldozer.

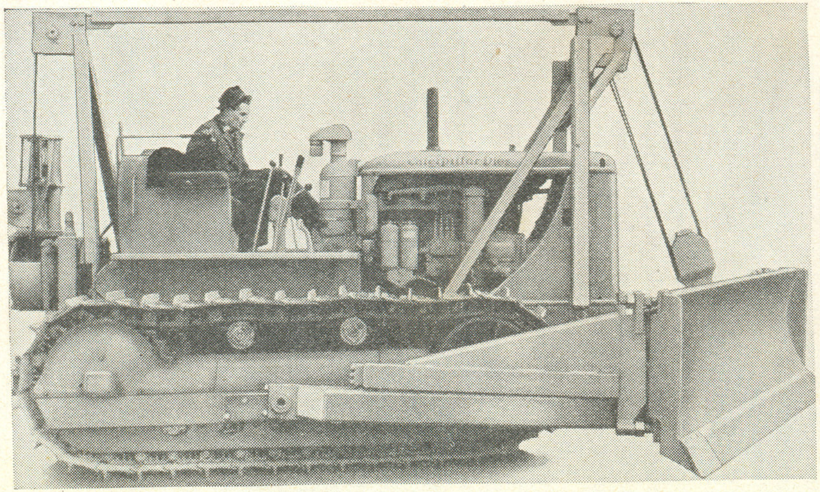

FIGURE 19.—Angledozer, LaPlante-Choate, Model SK-7.

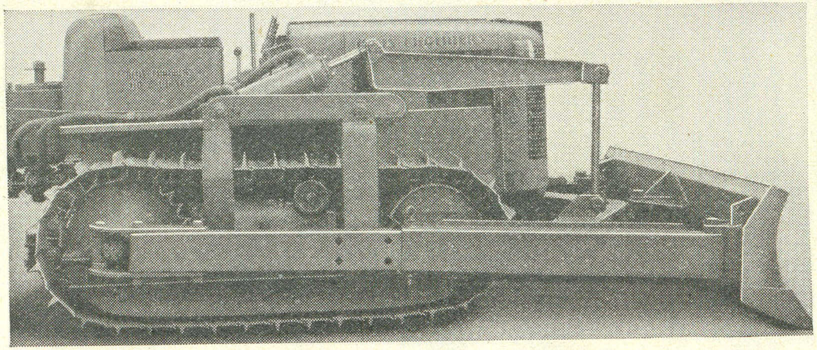

FIGURE 21.—Angledozer, Gar Wood, Model RBX.

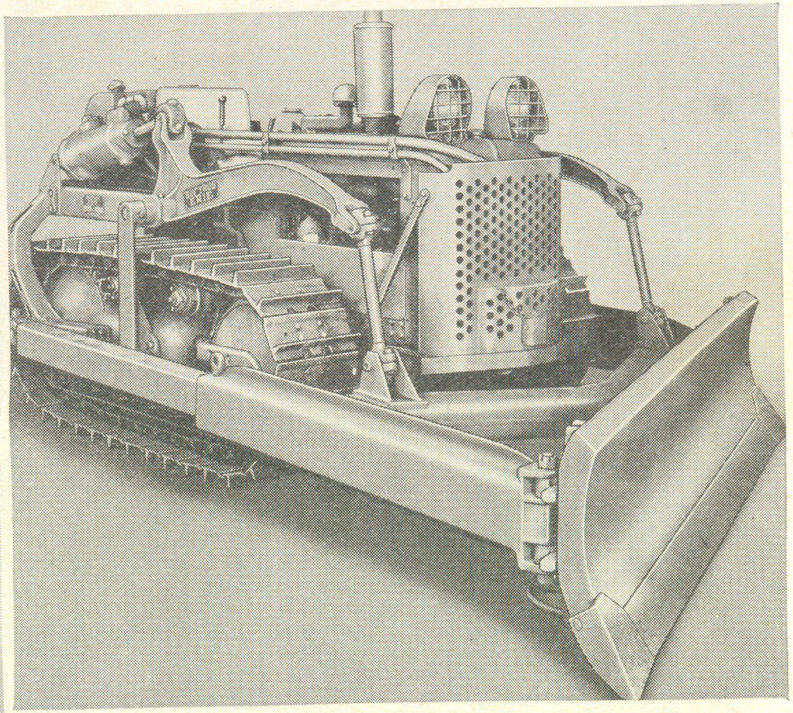

FIGURE 20.—Angledozer, Bucyrus-Erie, Model 20-21.

Model and manufacturer	Model to which attached	Stock No.	Length		Width		Height of blade and bowl	Blade operates		Lubricant grade		Height mounted for shipping	Shipping weight complete
			With blade straight	With blade angled	With blade straight	With blade angled		Above ground	Below ground	Above 32 F.	Below 32 F.		
			Inches	*Inches*	*Inches*	*Inches*	*Inches*	*Inches*	*Inches*			*Inches*	*Pounds*
CK8 Angledozer, LeTourneau	D8	78-1280.6-5	247	273	163	152	38	46	72	CG-1	CG-0	116	5880
AK8 Angledozer, LeTourneau	D8	78-1280.6-1	224	261	150	131	44	40	72	CG-1	CG-0	112	6700
CKD8 Angledozer, LeTourneau	D8	78-1280	247	273	163	152	38	46	72	CG-1	CG-0	116	5880
WCK7 Angledozer, LeTourneau	D7	78-1280.6-9	207	246	163	139	36	41	72	CG-1	CG-0	113	5390
SK7 Angledozer, LeTourneau	D7		210	246	145	129	38½	52	72	CG-1	CG-0	116	5300
SK6 Angledozer, LeTourneau	D6		186	216	133	115	32	42	72	CG-1	CG-0	106	4300
C6 Angledozer, LeTourneau	D6 or R5	78-1280.6-3	188	216	133	115	32	36	72	CG-1	CG-0	106	3970
WC6 Angledozer, LeTourneau	D6 or R5		188	222	156	135	32	36	72	CG-1	CG-0	106	4410
C4 Angledozer, LeTourneau	R4 or D4	78-1280.6-2	164½	191	117	101½	32	36	60	CG-1	CG-0	99	3300
R63 Angledozer, LaPlante-Choate	D6		187	217	124	111	33	40	15½	CG-1 OE-30	CG-0 OE-10	60	5100
R8 Angledozer, LaPlante-Choate	D8	78-1285.8-2	230½	260	154	138½	40	46	21	CG-1 OE-30	CG-0 OE-10	82	9610
R71 Angledozer, LaPlante-Choate	D7	78-1285.8-7	207½	237	145½	129½	35	47½	21	CG-1 OE-30	CG-0 OE-10	80	7150
R76F Angledozer, LaPlante-Choate	D7	78-1285.8	207½	237	145½	129½	35	56	78	CG-1	CG-0	116	6100
R61 Angledozer, LaPlante-Choate	D6	78-1285.8-6	187	217	124	111	33	46	15	OE-30 CG-1	CG-0 OE-10	60	5100
4R Angledozer, LaPlante-Choate	D4	78-1285.8-8	150¼	180	92¼	82	26¾	33	12	CG-1 OE-30	CG-0 OE-10	50	3340
RE Angledozer, Gar Wood	BG	78-1285.4-7	129	148	94	85	25	32½	16	OE-30 GO-90	OE-10 GO-80	57½	3500
RBX Angledozer, Gar Wood	HD-7W	78-1285.4-3	166	192½	132¼	119¾	27	43	13	OE-30 GO-90	OE-10 GO-80	70	5400

See note p. 41.

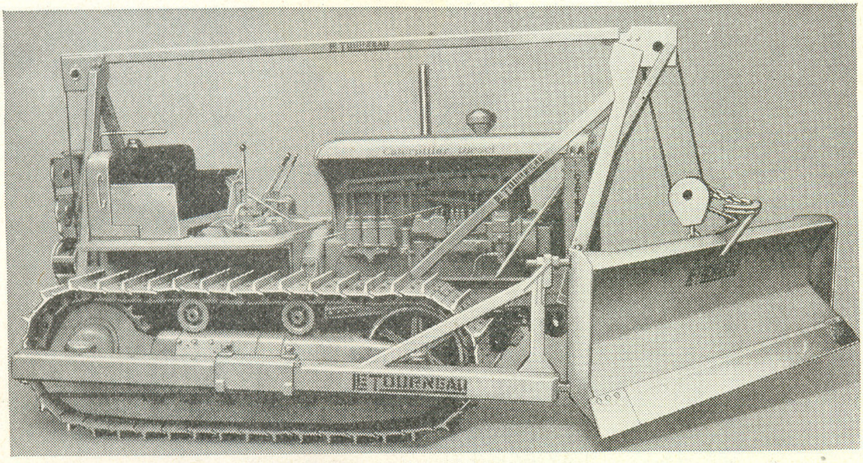

FIGURE 22.—Angledozer, LeTourneau, Model AK8.

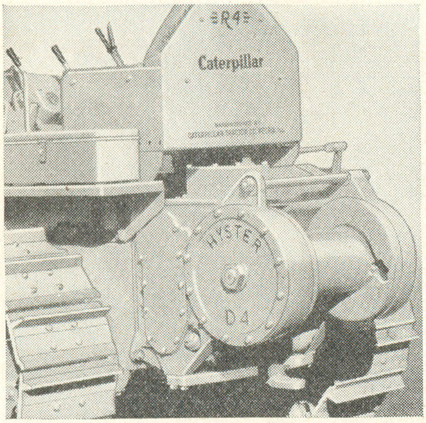

FIGURE 23.—Winch, Hyster, Model D4.

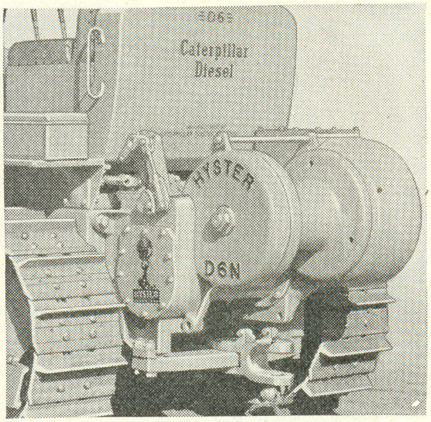

FIGURE 24.—Winch, Hyster, Model D6N.

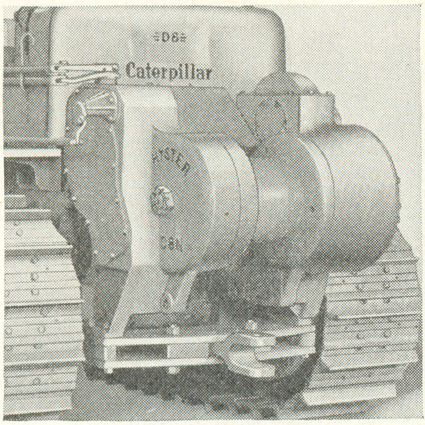

FIGURE 25.—Winch, Hyster, Model D8N.

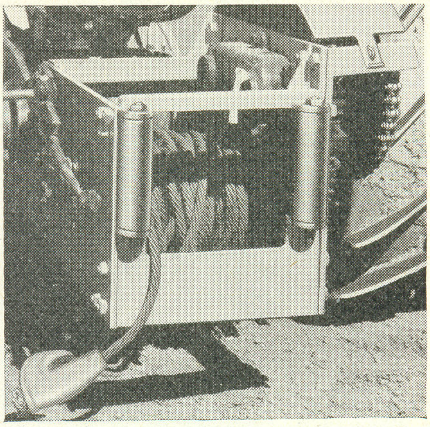

FIGURE 26.—Winch, Evans, Model ECC.

Model manufacturer	Model to which attached	Stock No.	Length		Width		Height of blade and bowl	Blade operates		Lubricant grade		Height mounted for shipping	Shipping weight complete
			With blade straight	With blade angled	With blade straight	With blade angled		Above ground	Below ground	Above 32 F.	Below 32 F.		
			Inches	*Inches*	*Inches*	*Inches*	*Inches*	*Inches*	*Inches*			*Inches*	*Pounds*
WT6 Angledozer, Buckeye	T6		163½	187¼	109¼	96½	33¾	36		GO-90	GO-80	73¼	3, 130
WB Angledozer, Buckeye	WM		162½	184¼	109¼	99	33¾	40		GO-90	GO-80	74	3. 129
HD7W Angledozer, Buckeye	HD-7W	78-1280.3-3	168	198½	129¾	109½	33¾	46		GO-90	GO-80	78	3, 856
20-21 Angledozer, Bucyrus-Erie	TD-9		159		121		26	30	12	GO-90	GO-80	64	4, 025

Model manufacturer	Model to which attached	Stock No.	Drum size, in inches			Line pull (Lb)		Line speeds (fpm)		Lubricant grade		Drums mounting	Shipping weight complete
			Barrel diameter	Flange diameter	Barrel length	Bare drum	Full drum	Bare drum	Full drum	Above 32 F.	Below 32 F.		
													Pounds
CA-1 Winch, Braden	CA-1		4	11	7	7500 @ 35-fpm	3720 @ 74-fpm	41. 36	87. 9	GO-90	GO-80	1-Drum, rear	124
ECC Winch, Evans	DI		7	20½	14¼	80, 000	80, 000	66 @ 1700-rpm	113	GO-90	GO-80	1-Drum, rear	1, 084
D4A Winch, Hyster	R4 or D4		8	16½	14	15, 400	8, 580	91	164	GO-90	GO-80	2-Drums, rear	1, 225
D4 Winch, Hyster	D4		8	16½	14	15, 400	8, 580	91	164	GO-90	GO-80	1-Drum, rear	1, 225
D6N Winch, Hyster	D6	78-9875.55-4	10	20	12	25, 000	14, 000	92	161	GO-90	GO-80	1-Drum, rear	1. 625
D7N Winch, Hyster	D7	78-9875.55-6	13	22	14	32, 000	22, 000	89	127	GO-90	GO-80	1-Drum, rear	2, 450
D8N Winch, Hyster	D8	78-9875.55-8	15	24	12	53, 000	34, 000	124	175	GO-90	GO-80	1-Drum, rear	3, 665

See note p. 41.

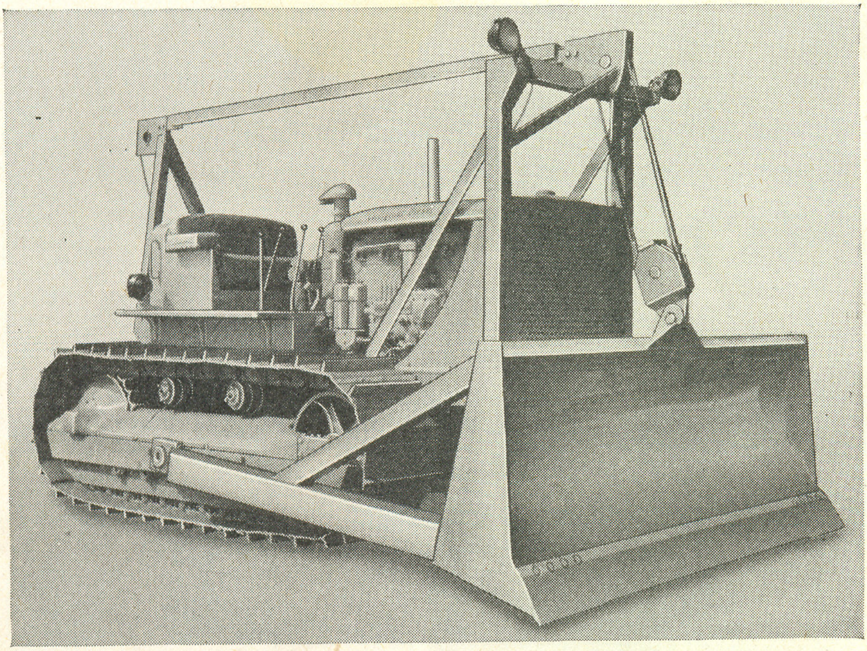

FIGURE 27.—Bulldozer, LeTourneau, Model WEK-7.

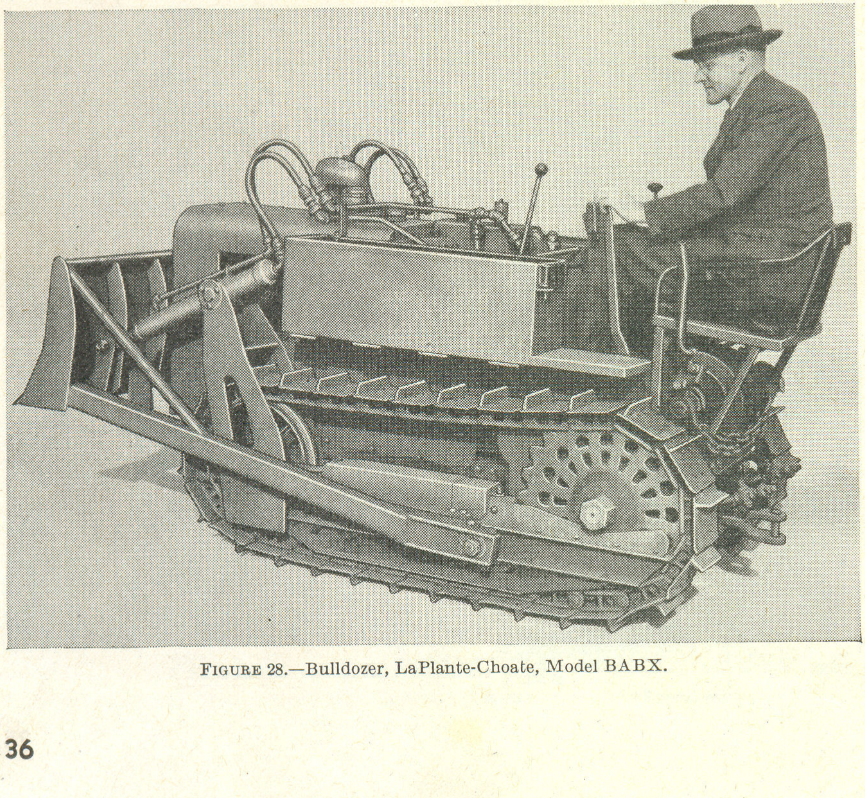

FIGURE 28.—Bulldozer, LaPlante-Choate, Model BABX.

Model manufacturer	Model to which attached	Stock No.	Length mounted	Width mounted	Blade operates		Height of blade and bowl	Cable length	Lubricant grade		Height mounted for shipping	Shipping weight complete
					Inches above ground	Inches below ground			Above 32 F.	Below 32 F.		
			In.	*In.*			*In.*	*Ft.*			*In.*	*Lb.*
E4 Bulldozer, LeTourneau	D4 (ST)		155½	82	38	60	32	55	CG–1	CG–0	99	2380
WE4 Bulldozer, LeTourneau	D4 Wide		155½	94	38	60	32	55	CG–1	CG–0	99	2450
E6 Bulldozer, LeTourneau	D6 (ST)		177	90	40	72	32	60	CG–1	CG–0	106	2950
WE6 Bulldozer, LeTourneau	D6 Wide		177	122	40	72	32	60	CG–1	CG–0	106	2950
K6 Bulldozer, LeTourneau	D6		185	94	45	72	32	60	CG–1	CG–0	112	3100
WK6 Bulldozer, LeTourneau	D6 (60)		185	122	45	72	32	60	CG–1	CG–0	112	3300
XD7 Bulldozer, LeTourneau	D7		195	122	37	72	45	65	CG–1	CG–0	112	4370
WEK7 Bulldozer, LeTourneau	D7		195	122	35	72	44	65	CG–1	CG–0	112	3600
E7 Bulldozer, LeTourneau	D7 (ST)		190	98	42	72	39	65	CG–1	CG–0	112	3550
WE7 Bulldozer, LeTourneau	D7 Wide		190	122	42	72	39	65	CG–1	CG–0	112	3900
K8 Bulldozer, LeTourneau	D8		224	134	38	72	46	65	CG–1	CG–0	114	4830
XD9 Bulldozer, LeTourneau	D8		228	135	41	72	45½	65	CG–1	CG–0	116	5400
HD7 Bulldozer, Buckeye	HD–7W		164	86½	50		36	60	GO–90	GO–80	77¼	2995
WHD7 Bulldozer, Buckeye	D7		165	101¼	52½		30	60	GO–90	GO–80	77¼	2954
B61 Bulldozer, LaPlante-Choate	D6		177	97½	38	10	35½	(1)	CG–1 OE–30	CG–0 OE–10	60	4350
B71 Bulldozer, LaPlante-Choate	D7		155½	117	35	13¼	43	(1)	CG–1 OE–30	CG–0 OE–10	80	6400
B8 Bulldozer, LaPlante-Choate	D8		210	124	32	12¼	47	(1)	CG–1 OE–30	CG–0 OE–10	82	8630
BABX Bulldozer, LaPlante-Choate	CA–1		111	59½	21	6	23¾	(1)	CG–1 OE–30	CG–0 OE–10	56	753
B82 Bulldozer, LaPlante-Choate	D8		210	123½	38	72	46¼	70	CG–1	CG–0	112	5960

[1] None Hydraulic.

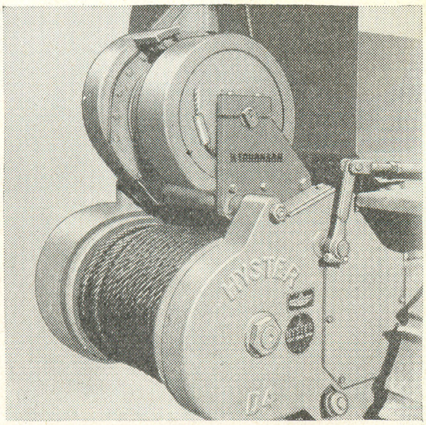

FIGURE 29.—Power Control Unit, LeTourneau, Model HN.

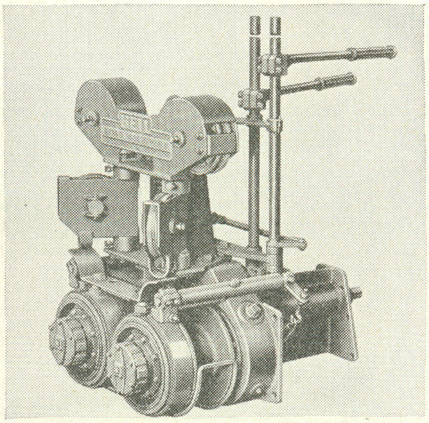

FIGURE 30.—Power Control Unit, Heil, Model LD2.

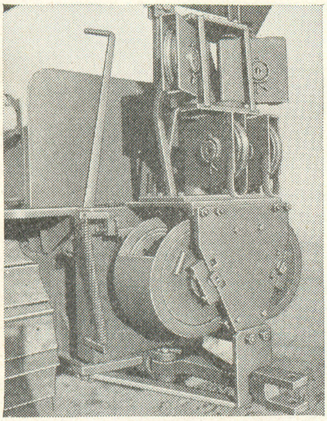

FIGURE 31.—Power Control Unit, LeTourneau, Model T4.

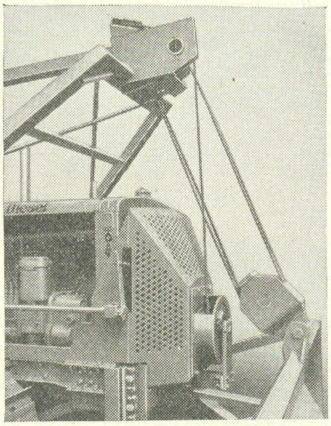

FIGURE 32.—Power Control Unit, LeTourneau, Model AD7.

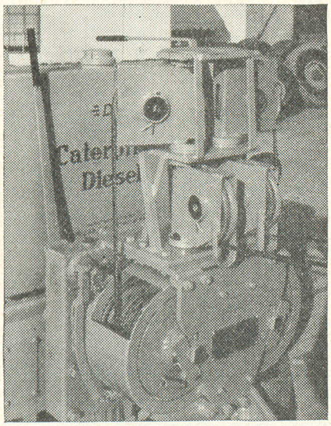

FIGURE 33.—Power Control Unit, LeTourneau, Model T8.

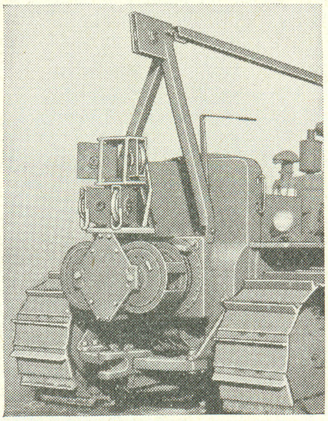

FIGURE 34.—Power Control Unit, LeTourneau, Model R7.

Model Manufacturer	Model to which attached	Stock No.	Method of operation, No. of drums, mounting	Drum measurement in inches				Lubricant grade		Line pull (lb.)		Line speed (fpm)		Cable size, length		Shipping weight complete
				Diameter	Length	Flange	Sheave	Above 32 F.	Below 32 F.	Bare drum	Full drum	Bare drum	Full drum	*Ft.*	*In.*	*Lb.*
T4 Power Control Unit, LeTourneau.	D4 or R4	78-6670.8-5	Tractor Gears, Cable, 2-Drum, Rear.	7⅝	7⅝	13	9½	GO-90	GO-80	3200	2030	361	568	186	½	1340
R678 Power Control Unit, LeTourneau.	D6, D7 or D8	78-6670.8-4	do	8⅝	7⅝	15	9½	GO-90	GO-80	5000	3100	D6-440 D7-313 D8-298	713 510 484	255	½	1525
AD7 Power Control Unit, LeTourneau.	D7	78-6655.1-52	Tractor Gears, Cable, 1-Drum, Front.	6⅝	4	13	9½	GO-90	GO-80	4000	2210	332	601	111	½	690
DN7 Power Control Unit, LeTourneau.	D7	78-6675.4-5	Tractor Gears, Cable, 4-Drum, Rear.	7⅝	7⅝	13	9½	GO-90	GO-80	4000	2540	382	601	186	½	2680
FTD7 Power Control Unit, LeTourneau.	D7		Tractor Gears, Cable, 1-Drum, Front.	6⅝	4	13	9½	GO-90	GO-80	4000	2210	332	601	111	½	690
R7 Power Control Unit, LeTourneau.	D7	78-6670.8-2	Tractor Gears, Cable, 2-Drum, Rear.	8⅝	7⅝	15	9½	GO-90	GO-80	5000	3100	313	510	255	½	1525
R8 Power Control Unit, LeTourneau.	D8	78-6670.8-3	do	8⅝	7⅝	15	9½	GO-90	GO-80	5000	3100	298	484	255	½	1525
T8 Power Control Unit, LeTourneau.	D8	78-6670.8-8	do	7⅝	7⅝	13	9½	GO-90	GO-80	4000	2540	245	386	186	½	1320
FD8 Power Control Unit, LeTourneau.	D8	78-6655.1-56	Tractor Gears, Cable 1-Drum, Front.	6⅝	4	13	9½	GO-90	GO-80	4000	2210	315	570	111	½	760
HN Power Control Unit, LeTourneau.	D4 or R4	78-6665.1-7	do	6⅝	4	13	9½	GO-90	GO-80	3075	1875	308	518	111	½	480
CA-1 Power Control Unit, LaPlante-Choate.	CA-1		Hydraulic					OE-30	OE-10							
P11 Power Control Unit, LaPlante-Choate.	SI		do					OE-30	OE-10							330
MD Power Control Unit, LaPlante-Choate.	D7 or HD-7W		do					OE-30	OE-10							
GLT Power Control Unit, Buckeye.	WM		Tractor Gears, Cable, 2-Drum, Rear.	9¼ 13½	8 5½	16	10¾ 9⅞	GO-90	GO-80	7000 4875	4600 4300	102 147	155 157	500 150	½	1725
GLT Power Control Unit, Buckeye.	T6 or WM		do	9¼ 13½	8 5½	16	10¾ 9⅞	GO-90	GO-80	7000 4875	4600 4300	107 154	156 165	500 150	½	1725
MD Power Control Unit, Buckeye.	HD-7W	78-6670.2-7	do	9¼	5½	16	10¾ 9⅞	GO-90	GO-80	7000	4600	237	360	350	½	1650
LD2 Power Control Unit, Heil.	HD-7W		do	6⅜	4½	13	8	GO-90	GO-80	4000	2300	270	500	156	½	1000

See note, p. 41.

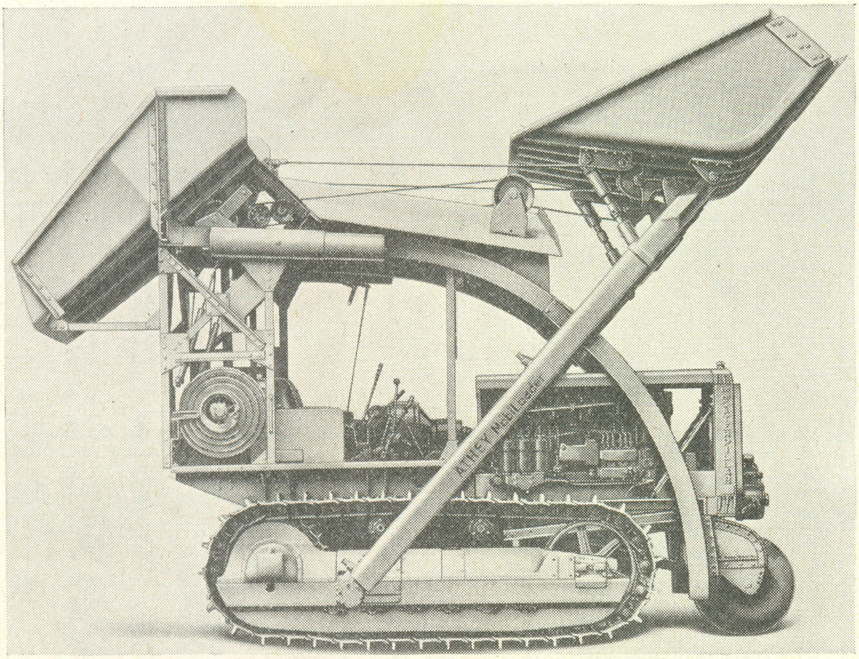

FIGURE 35.—Model 8H Bucket Loader, Athey, "Mobiloader."

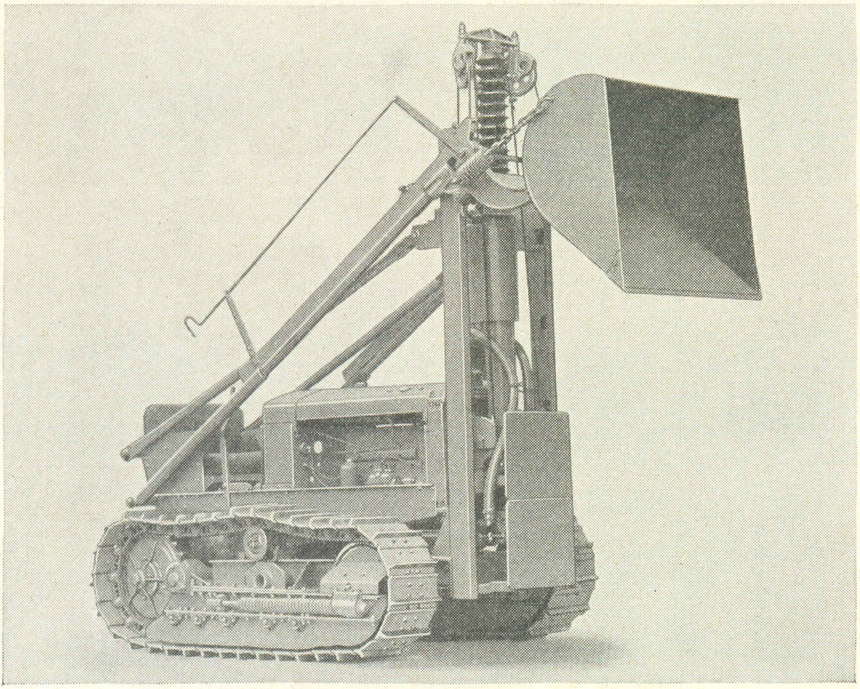

FIGURE 36.—Model WM Bucket Loader, Hough.

Model manufacturer	Model to which attached	Stock No.	Bucket		Cutting height	Dumping height	Working dimensions, with tractor					Lubricant grade		Shipping weight complete
							Bucket raised		Bucket lowered					
			Width	Capacity			Length	Height	Length	Height	Width	Above 32 F.	Below 32 F.	
			In.	Cu. yd.	In.	In.	In.	In.	In.	In.	In.			Lb.
8H Bucket Loader Athey, "Mobiloader"	D8		108	3.7	152	174	196	262	305	152	120	OE-50 GO-90	OE-30 GO-80	21,500
W4 Bucket Loader Athey, "Mobiloader".	D4	78-5545.1-1	74	1.12	102	90	144	192	243	132	88	OE-50 GO-90	OE-30 GO-80	8,400
WM Loader Hough	WM		42	0.5	42	90½	154	135	154	111	66¼	OE-30	OE-10	3,200
SI Loader Hough	SI	78-5555.03-5	36	.33	36	45	153	79	153	60	57	OE-30	OE-10	1,400

Model manufacturer	Model to which attached	Stock No.	Drum measurement (in.)			Lifting capacities		Line speeds, (fpm)			Lubricant grade		Shipping weight complete
			Drum length	Drum diameter	Flange diameter	With overhang	(Lb.)	Gear	Load drum	Boom line	Above 32 F.	Below 32 F.	
						Feet							Pounds
MD7 Pipelayer, Trackson	D7		Load Drum 12 Boom Drum 5	Load Drum 8½ Boom Drum 8½	Load Drum 18¾ Boom Drum 15	4	28,000	4	464	232	GO-90	GO-80	33,500
						6	18,500	3	200	100			
						8	13,750	2	130	65			
						10	11,000	1	80	40			
						12	9,000	Reverse	80	40			
PD4 Pipelayer, Trackson	D4 or R4		Load Drum 12 Boom Drum 6	Load Drum 8 Boom Drum 8	Load Drum 19 Boom Drum 14	4	11,500	3	140	70	GO-90	GO-80	16,200
						6	7,500	2	70	35			
						8	5,500	1	35	18			
						10	4,500	Reverse	35	18			

Model manufacturer	Model to which attached	Stock No.	Bucket		Cable size	Diameter cable sheaves	Dimensions, on tractor					Lubricant grade		Shipping weight complete
							Over-all (in.)			Lifting height (inches)	Dumping clearance (inches)			
			Capacity	Width			Length	Width	Height			Above 32 F.	Below 32 F.	
			Cu. yd.	In.	In.	In.								Pounds
T4 Loader Trackson "Traxcavator."	D4	78-5545.07-7	¾	48	½	9	172	73	124	104	84	GO-90	GO-80	3,650
T7 Loader Trackson "Traxcavator."	D7		2	75	¾	12	234	92	144	120	96	GO-90	GO-80	10,000

NOTE.—For information regarding cable type, diameter, length, etc., refer to ASF Catalog, Section ENG 10-WR90, "Interchangeability Lists for Wire Rope."

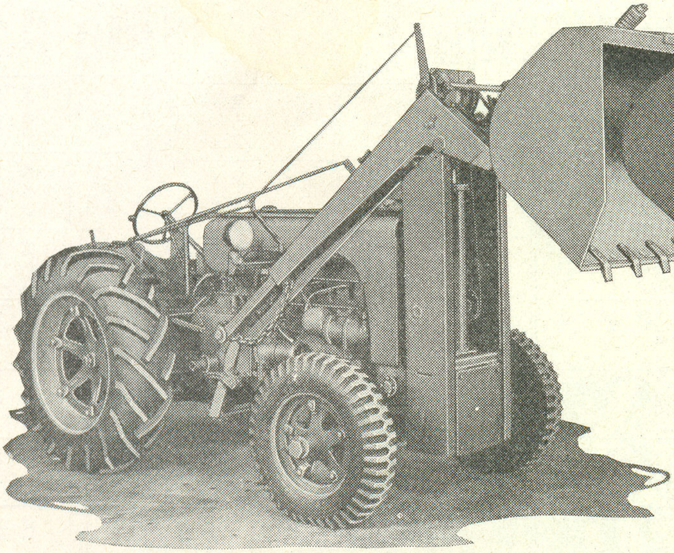

FIGURE 37.—Loader, Hough, Model SI.

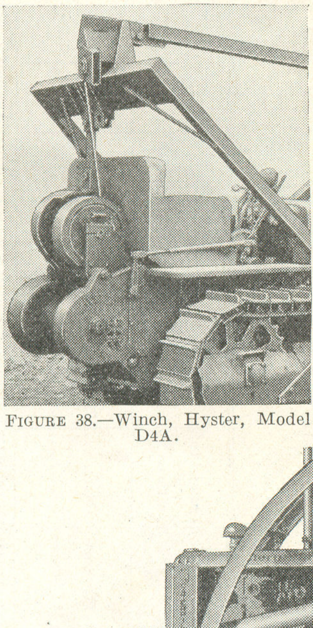

FIGURE 38.—Winch, Hyster, Model D4A.

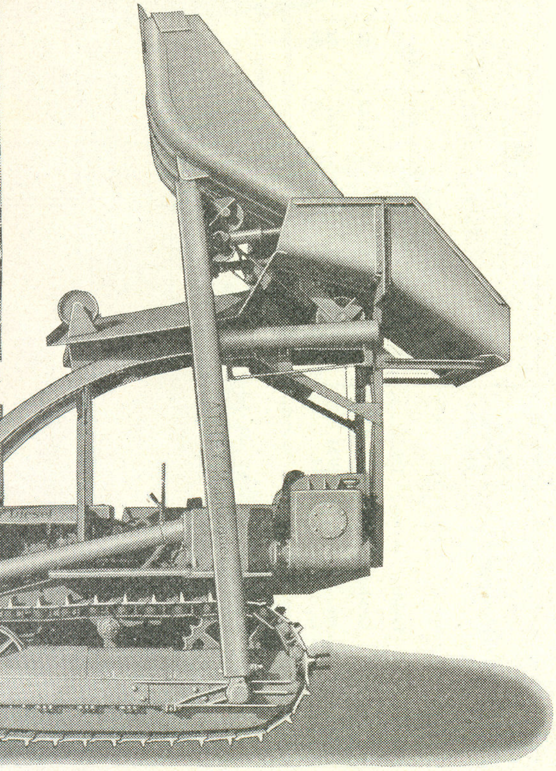

FIGURE 39.—Loader, Athey, Model W4, "Mobiloader."

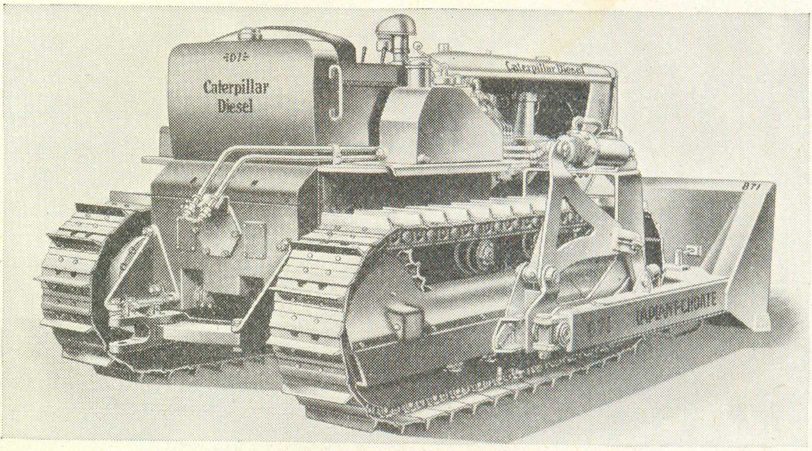

FIGURE 40.—Bulldozer, LaPlante-Choate, Model B71.

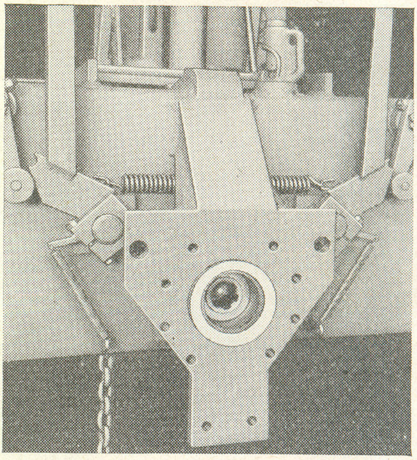

FIGURE 41.—Power Control Unit, LeTourneau, Model R8, Showing the Mounting Plate.

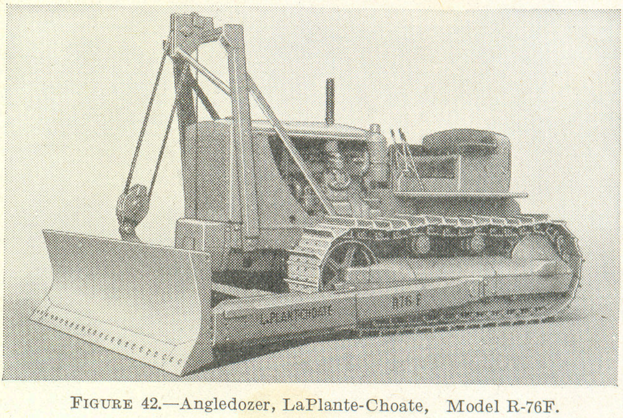

FIGURE 42.—Angledozer, LaPlante-Choate, Model R-76F.

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